

East Hollis

volume 2:

The East Hollis Street Area Plan: APPENDICES

*Prepared for
the City of Nashua Community Development Division*

Prepared by



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APPENDIX A: Existing Conditions





EAST HOLLIS STREET PLAN

EXISTING CONDITIONS TECHNICAL MEMORANDUM

FINAL – JULY 7, 2003

EXISTING CONDITIONS – URBAN DESIGN AND LAND USE

The East Hollis Street Area Plan's boundaries are Spruce Street to the west, Bowers Street to the south, the Merrimack River to the east and the Nashua River to the north. The district is a mix of land uses; historically, rail stations and heavy industry were located in the central portion, with pockets of residential neighborhoods interspersed. The study area includes approximately 260 acres.

BLOCK PATTERNS, NEIGHBORHOODS AND UNDERUTILIZED PARCELS

- The project area is comprised of fragments of eroding residential neighborhoods, separated by industrial and rail uses.
- Industrial areas are large-scaled parcels, large-scaled buildings contributing to irregularity of block patterns and building fabric.
- Residential areas are of two types: Historic patterns, with very small blocks, narrow streets and higher-than-average densities (The Acre and Jackson Square), and Nashua Standard patterns (Alphabet and Arlington Street).
- Underutilized parcels largely coincide with the industrial areas fragmenting the district.

LAND USES

- The project area features little civic or parkland infrastructure.

There is an existing playlot on Bridge Street across from Warren Street, and a skateboard park and dirt bike track near the river's edge along Bridge Street. These are the only two park/recreation facilities, landside; there is also a boathouse south of the Taylor Falls Bridge. Just outside of the study boundaries are playfields behind the Dr. Crisp school and Sullivan Park. There is a segment of a trail along the waterfront at the Bridge Street PSNH substation, but there is no outlet or destination, and is somewhat isolated. PSNH has requested it be closed because of the isolation. Much of the oxbow area and the area at the banks of the two rivers is in floodplain. Much of the study area is in the 500-year floodplain.

The Oxbow area has poor, filled soils, and for this reason should be the last area developed.

The only civic uses are three churches; one, St. Casimir's now empty; the second, the Infant Jesus School, a church and private school at the corner of Allds and Crown, and the



third is housed in a portion of the former McElwain Company building is leased to a religious community. Just outside the study area boundaries are the Dr. Crisp school and the Arlington Street fire station.

- Commercial uses are largely oriented along Bridge and East Hollis Streets.

The high proportion of commercial uses along these streets are auto-oriented – fast food drive-throughs, gas stations and convenience stores, auto dealerships, auto supply and repair.

- Industrial and warehouse uses are largely oriented along the former and existing rail corridors.

Key industrial or warehouse businesses include Corriveau Routhier (masonry and stone), Triangle Pacific and other cabinet manufacturers, and lumber yards.

- Three residential areas – The Acre, Jackson Square, Alphabet – have eroded over time with commercial encroachments.
- The Crown Hill residential area is largely thriving, but requires preservation.

Residential uses in the district include 140 single family homes, one 16 unit condominium complex, 240 multi-family properties and 16 vacant parcels for a total of 944 housing units.

USE	% OF PARCELS	% OF AREA	% OF STUDY AREA'S ASSESSED VALUE
Residential	76% (415)	33% (67.2 acres)	57.6%
Non-residential	24% (127)	66% (133.4 acres)	42.3%

- Utility uses occupy a large portion of the Nashua River waterfront

The area is 33% residential, 66% commercial/industrial by area. The existing residential density is 14 dwelling units per acre. Single-family homes comprise 15% of the units; 85% are within multifamily complexes.

There has been very little new housing construction within the area (i.e., within the last 40 years).

For more details, see Appendix A: Land Use Economics/Tax Base Assessment

HISTORIC RESOURCES

- St. Casimir Church, 119 Temple St.
- Old railroad building (farmer's market), 38 ½ Bridge Street
- Former W.D. Brackett Company (Henry Hanger), 110 E. Hollis
- Old Crown Street complexes



- Gregg & Son, 25 Crown
- Flather & Co. machine shop, 29 Crown
- New England Bobbin & Shuttle, 31 Crown
- Greenerd Arbor Press, 41 Crown
- Maine Manufacturing Building, 46 Bridge St.
- J.F. McElwain Co., Temple Street
- Former Nashua Buick, 93 E. Hollis Street

With potential -

- Granite walls, Commercial Street and extending along the old railroad right of way parallel to E. Hollis
- Worker housing on Shedd's Avenue in the Acre; perhaps other structures in the Acre as well
- Row houses on Amory Street fronting the river

ISSUES/OPPORTUNITIES

- Create connections to/through the district with an off-street pedestrian/bicycle network. potentially linking open spaces.
- Rehabilitate selected historic structures to represent the district's past, and draw on distinctive architectural features within the area to inspire new building design.
- Strengthen and enhance the Bridge, Temple and Nashua Street corridors for multi-modal use and improved streetscapes.
- Reclaim the riverfront areas for recreation, walking and biking, and make connections from the waterfront into the center of the district.
- Enhance the major gateway at the Taylor Falls bridge, and the minor gateway at Bridge Street's bridge.
- Minimize and overcome the barriers within the district – rail corridors, vacant or underutilized parcels, walls at Commercial Street, utilities.
- Strengthen residential neighborhoods with traffic management, buffers, and new development.
- Integrate the rail station into the district to connect commercial, industrial and residential interests
- Preserve the strong industrial character of the area by maintaining or expanding industrial viability.

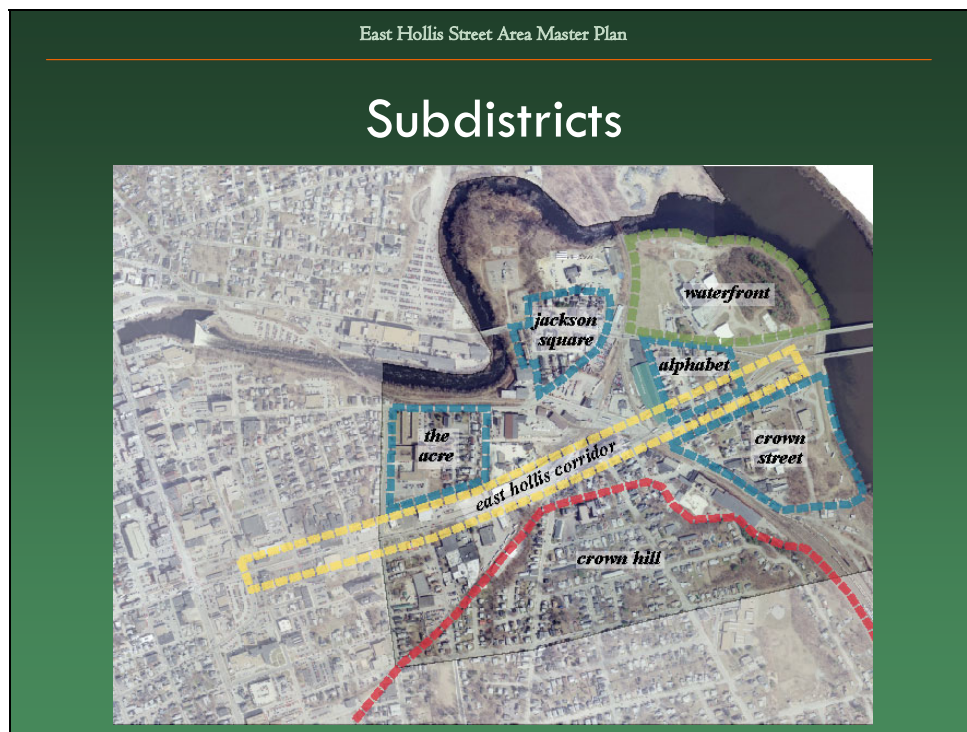


FIGURES

1. Illustrates in three dimensions the varying land use patterns in the district. Housing is organized in distinct pockets; commercial along East Hollis; industrial along the railroads, with very few civic or open space features.



2. Illustrates subdistricts as identified by the consultant team, and the empty places in the neighborhoods development pattern – along the railroad industrial corridors – that define them.





3. Illustrates paths – roadway into and out of the district; off-road corridors like rail rights of way now unused, the possibility of park connections to the waterfront, a zone of focus highlighted as the area to focus implementation, and a series of histories resources around its periphery.



4. Illustrates subdistricts as identified by the consultant team, and the empty places in the gateways into the district at the bridges, but in particular the gateway to Nashua from Hudson; barriers, neighborhoods, a vacant center, corridors and the interspersed historic resources.





EXISTING CONDITIONS - TRANSPORTATION

Roadways

Roadways in the study area have been classified as arterials, collectors, and local roads. Arterial roadways are considered major roadways providing access through the study area to points outside of the study area. Collector roads are roadways providing continuous access within the study area and connections to the arterial roadways. Local roads primarily provide very limited access to residential areas.

Arterial Roads

E. Hollis Street
Allds Street
Bridge Street

Collector Roads

Temple Street
Amory Street
Spruce Street/Harbor
Avenue
Arlington Street
Bowers Street

Data source: NHDOT website

Average Annual Daily Traffic (AADT)

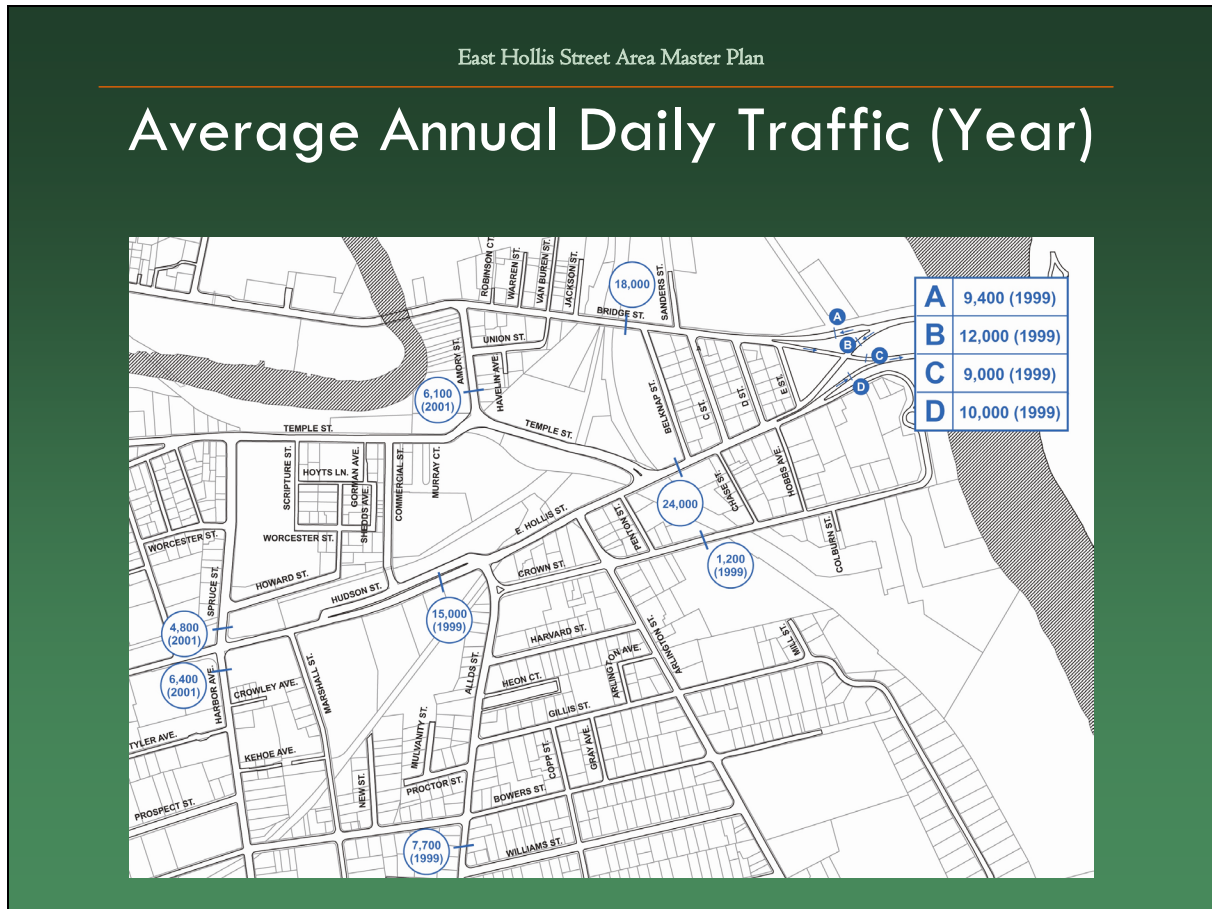
<u>Location</u>	<u>AADT</u>	<u>Year</u>
E. Hollis Street, west of Allds Street	15,000	1999
E. Hollis Street, east of RR	24,000	2000
E. Hollis Street eastbound, west of Taylor Falls Bridge	10,000	1999
E. Hollis Street westbound, west of Taylor Falls Bridge	12,000	1999
Bridge Street eastbound, west of Taylor Falls Bridge	9,000	1999
Bridge Street westbound, west of Taylor Falls Bridge	9,400	1999
Bridge Street, east of RR	4,000	2000
Amory Street, north of Temple Street	6,100	2001
Spruce Street, north of E. Hollis Street	4,800	2001
Harbor Avenue, south of E. Hollis Street	6,400	2001
Crown Street, west of RR	1,200	1999
Allds Street, south of Bowers Street	7,700	1999

Data source: NRPC website

The key roadway issue is the high and increasing demand along east-west arterials – East Hollis and Bridge/Canal streets connecting Hudson to Nashua and Route 3 –and the limited capacity of those roadways. Capacity may be limited by a variety of constraints: Limited alternative routes due to expense of river crossings; limited right-of-way on historic roads;



many conflict points due to frequent and sometimes poorly designed intersections, and frequent driveways; and inefficient signal timings.





Parking

Street parking in the study area is predominantly un-restricted during the daytime. However, within the study area, the following parking restrictions occur:

No Parking

Bowers Street
(south)

Bridge Street (north)

Chase Street

Spruce Street (west)

Temple Street
(north)

1-hour parking

Bridge Street
(south)

E. Hollis Street
(south)

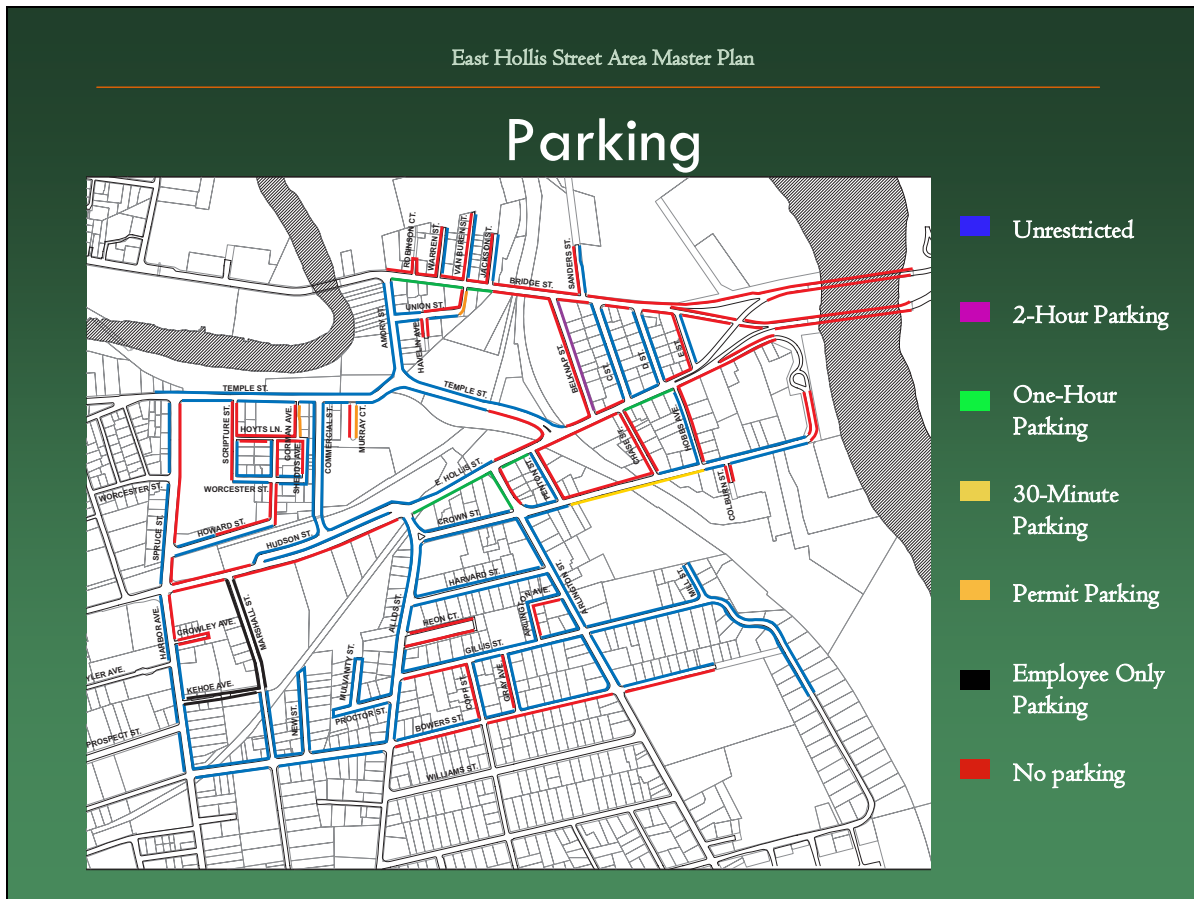
30-minute parking

Crown Street (south)

Resident Permit

Gorman Avenue
(east)

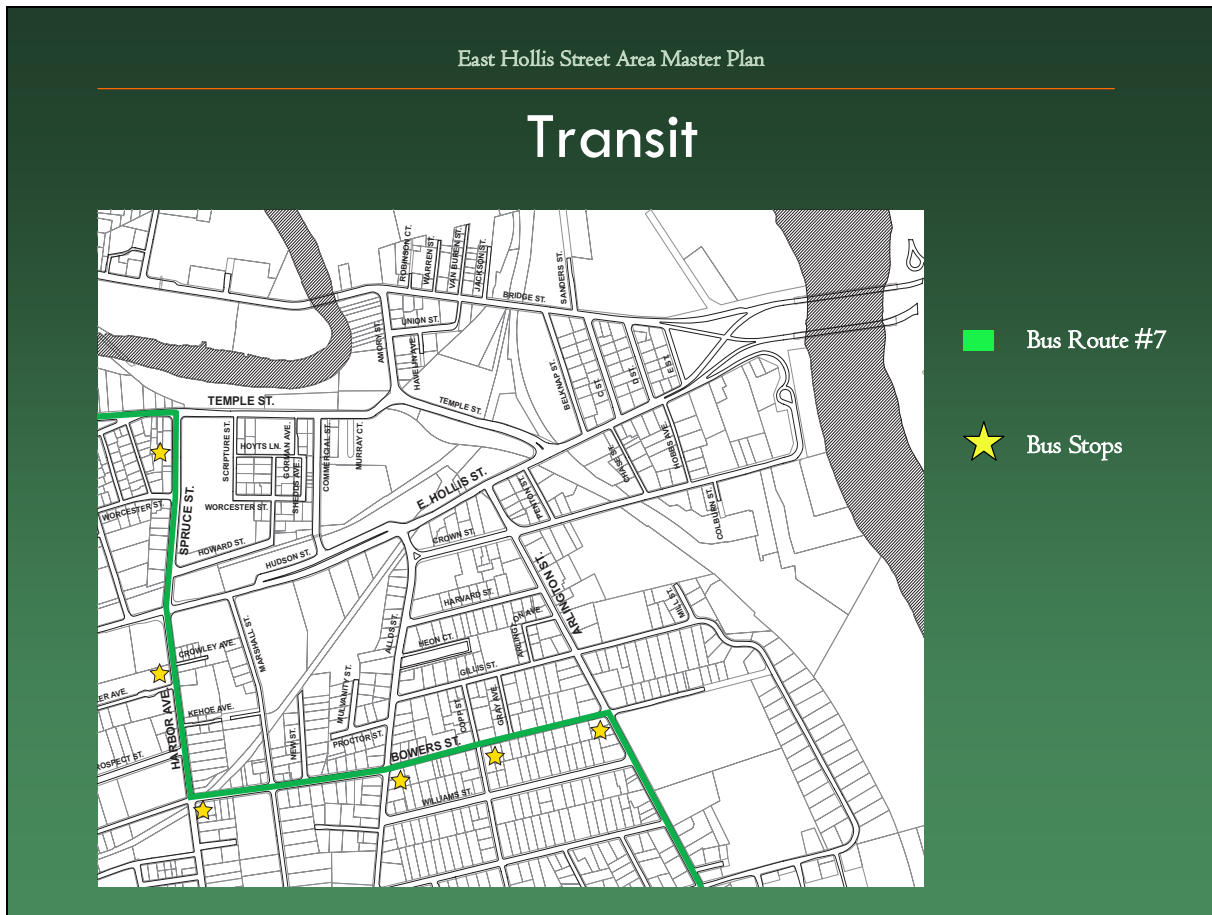
Murray Court





Transit

Public bus fixed route service and demand-response paratransit service in the region are provided by the Nashua Transit System (NTS). Citybus offers fixed route transit service for residents of Nashua through 6 routes that cover the most populated neighborhoods and most commercial and industrial areas. Route 7 is the Crown Hill/Spring Street service originating at the Transit Center and providing service to Sullivan Terrace, Bowers Street, Arlington Street, and the Globe Plaza. Citybus service operates Monday through Friday from 6:15 am to 6:45 pm and Saturdays from 9 am to 5:45 pm. The Route 7 bus service runs every hour.





Rail

Existing rail lines, the few still in operation, are currently only handling freight traffic. Guilford Rail System owns the line that connects the MBTA Lowell Line through Nashua to Manchester and Concord. It is also part of the route planned for Boston-Montreal High Speed Rail. This rail line enters the study area through the rail yards in the southern portion, and curves through the district exiting north across the Nashua River.

Another Guilford line wyes off the line to Concord from a point between Bridge and East Hollis Streets, follows Temple Street to the northwest through the study area and exiting across the Nashua River behind the City Library. A pedestrian/bicycle path is adjacent and connects to Main Street on the north bank of the river, and to Temple Street. This active freight rail line is named the Hillsboro Branch in the State Rail Plan (2001), but is more commonly referred to as "the Nashua-Wilton" line.

The Nashua-Acton corridor, running roughly parallel to Allds Street, and the Worcester-Nashua corridor, parallel to East Hollis, are both unused and the rail is largely disassembled. Portions of the right-of-ways have been encroached upon or may now be in private ownership.

Pedestrians

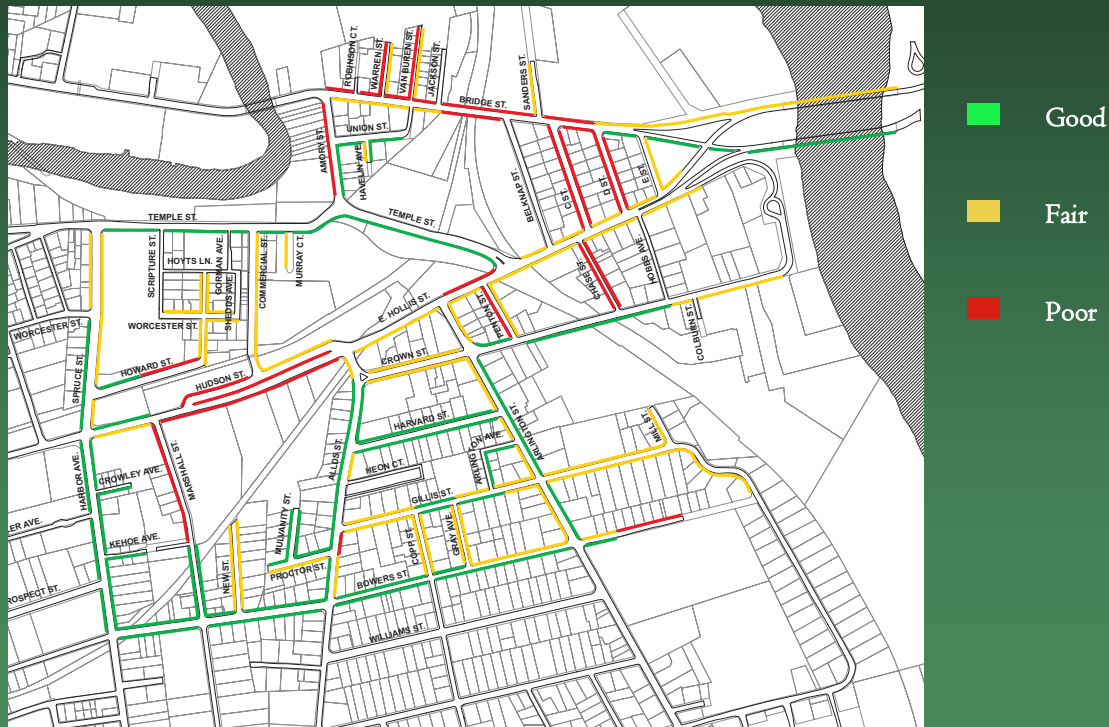
Sidewalks in the study area are constructed of either concrete or asphalt. Sidewalk conditions in the area range from poor to fair to good to non-existent. Generally, the sidewalks within the study area are in fair condition and provide continuous access between the neighborhoods. Often, the sidewalks are narrow, and include utility poles or boxes as obstacles. There is a noticeable lack of street trees or other amenities. East Hollis Street is notable in that narrow sidewalks are immediately adjacent to aggressive commuter traffic and can be discontinuous and making for an uncomfortable walking environment. Sidewalk improvements are needed in particular on:

- E. Hollis Street;
- Bridge Street;
- Spruce Street;
- Allds Street;
- Temple Street; and
- Arlington Street.



East Hollis Street Area Master Plan

Sidewalk Conditions



Also at issue is the safety of pedestrian crossings throughout the district. In particular, the high volumes of right-turns from Allds to East Hollis make crossing very challenging, especially considering the existing and planned elderly housing nearby. Paths to schools and parks for children also require attention to improve safety at crossings.

There is substantial opportunity to expand the off-street pedestrian and bicycle network through this area, given a number of underutilized rail rights-of-way. There is a need and desire to connect that network to the riverfront and across the Taylor Falls Bridge to Hudson.

Bicycles

There are no designated bicycle lanes or routes in the study area. The Nashua Master Plan identified Allds Street, Bowers Street, E. Hollis Street, and Temple Street as corridors that could be improved to better accommodate bicycle travel in the study area. As mentioned above, there are substantial opportunities to extend an off-street path network into this district on old rail rights-of-way.



Issues and Opportunities

- Control and/or divert Allds Street cut-through
- Increase Allds Street/Hudson Street/E. Hollis Street intersection safety and efficiency
- Improve overall network efficiency/congestion management, through signal improvements, potential changes in flows or network alignments
- Address Commercial Street grade separation
- Address Crown Street/Allds Street sight distance
- Address Crown Street/Arlington Street sight distance
- Complete improvements at Amory and Temple
- Pedestrian improvements are priorities at:
 - E. Hollis Street
 - Allds Street
 - Arlington Street
 - Spruce Street
 - Temple Street
 - Off-street network
- Bicycle improvements are priorities at:
 - Allds Street
 - Off-street network
 - Intersection operations
 - Bridge Street/E. Hollis Street
 - Temple Street/E. Hollis Street
 - Allds Street/E. Hollis Street
- Rail Station integration
 - Prevent auto congestion resulting from station area circulation
 - Create safe, attractive bicycle and pedestrian path to/from the station
 - Link the station to other neighborhoods with bus feeder service
 - Consider station as future link to airports



Land Use Economics/Tax Base Assessment East Hollis Area Plan

The study area contains a total of 546 real estate parcels on approximately 200 acres of land, according to the City of Nashua's assessors database.

- Residential properties comprise 76% (415) of the parcels, which occupy approximately 67.2 acres (33%).
- Non-residential parcels (127) utilize 133.4 acres, or 66% of the study area.
- The total assessed value of the study area[1] is approximately \$124.7 million, with approximately 41% attributed to the residential properties (\$51.4 million) and 59% (\$73.3 million) to the commercial and industrial tax base. However, included with the non-residential property is the Energy North gas storage and distribution facility on Van Buren Street, which alone is valued at more than \$37 million, \$35.5 million of which is a charge back to the City for gas infrastructure; a more reasonable estimate for that parcel would be \$1.2 million. The following figures result from this assumption:

TOTAL ASSESSED VALUE (modified) \$89.2 million

TOTAL RESIDENTIAL ASSESSED VALUE \$51.4 million

TOTAL COMMERCIAL/INDUSTRIAL ASSESSED VALUE (modified) - \$37.8 million

USE	% OF PARCELS	% OF AREA	% OF STUDY AREA'S ASSESSED VALUE
Residential	76% (415)	33% (67.2 acres)	57.6%
Non-residential	24% (127)	66% (133.4 acres)	42.3%

Residential uses include 140 single family homes, one 16- unit condominium complex, 240 multi-family properties and 16 vacant parcels for a total of 944 housing units.



The table below illustrates the breakout of residential parcels by type.

East Hollis Area Plan						
Residentially Zoned Properties						
	Number of Parcels	Residential Units	Land Area (sf)	Land Area (ac)	Bldg Area (sf)	Total Assessed Value
Single Family	140	140	909,213	20.9	385,568	\$14,769,700
Condominiums	16	16	64,347	1.5	27,275	\$1,159,800
2 Family	129	258	855,841	19.6	543,309	\$15,207,800
3-4 Family	81	279	512,810	11.8	441,833	\$11,515,700
5-9 Family	24	158	197,223	4.5	202,374	\$4,469,100
10+ Family	6	91	158,605	3.6	102,344	\$2,817,400
Other	3	2	66,151	1.5	29,337	\$1,124,000
Vacant	16	0	160,922	3.7	0	\$357,800
	415	944	2,925,112	67.2	1,732,040	\$51,421,300

Source: Nashua Tax Assessor & RKG Associates

944 units / 67.2 acres = 14 DU/A

Single family – 15% of all residential units

Multifamily – 85% of all residential units

On average across the entire study area, the total assessed value per residential housing unit is approximately \$54,500. Single family homes carry the highest average assessed value at \$105,500 followed by condominiums (\$72,500) and two-family houses (\$58,900 per unit). Larger multi-family properties carry lower per unit valuations ranging from \$28,300 to \$41,300. The average land value of all residential properties is estimated at \$215,700 per acre while the total assessed value per acre is \$765,800.

Non-residential uses include a wide variety of commercial and industrial uses, as classified by the assessor. Also included are several utility facilities, vacant land parcels and municipally or state-owned properties. The following table summarizes these uses:



East Hollis Area Plan

Non-Residential Properties

	Number of Parcels	Land Area (sf)	Land Area (ac)	Building Area (sf)	Total Assessed Value
Commercial	44	827,291	19.0	290,952	\$12,194,400
Warehouse	18	943,327	21.7	469,249	\$7,784,800
Auto	23	473,588	10.9	68,169	\$3,448,900
Industrial	8	1,264,852	29.0	631,733	\$4,342,900
Land	15	681,509	15.6	620	\$2,857,500
Utilities	7	924,177	21.2	39,110	\$1,859,000
Gov't	7	508,122	11.7	0	\$1,350,800
Charitable	5	187,562	4.3	92,481	\$3,913,400
	127	5,810,428	133.4	1,592,314	\$37,751,700

Source: Nashua tax Assessor & RKG Associates

% of commercial land area

Commercial	14
Gov't	9
Charitable	3
Subtotal -	26%
Warehouse	16
Auto	8
Industrial	22
Land	12
Utilities	16
Subtotal -	64%

The average land value per acre for non-residential properties is \$118,600 while average building value is just over \$36 per square foot. Total assessed value is very high at \$549,200 per acre, however, this is skewed upward as a result of the gas plant mentioned above. If the gas plant is removed, the total assessed value per acre is lowered to approximately \$284,000.

Vacant non-residential land includes several very small parcels and 3 larger lots with 2.8 acres, 2.9 acres and 4.8 acres. Within the broad categories of uses described in the table above, there are 15 commercial warehouses, 14 retail stores/shops, 5 restaurants/clubs, 14 auto repair facilities and 8 parking lots. The total assessed value per square foot of building space ranges from a low of under \$6 for the 6 properties classified as Factory to a high of \$131 for restaurants/clubs and \$194 for the single gasoline service station. Other uses and their average value include a bank at \$76, 3 offices at \$63 and a day care at \$55.



In addition to the gas plant, the most valuable non-residential properties include the Catholic Church on Crown Street with an assessed value of \$2.2 million, a lumber yard/industrial warehouse at 145 Temple Street valued at \$1.7 million, the large industrial complex of buildings owned by Nash at 103 Temple valued at \$1.4 million and the former Maine Manufacturing complex at 45-50 Bridge Street owned by Riverside Properties valued at \$1.13 million. Another 4 properties in the study area are assessed in excess of \$1 million while 12 are assessed between \$500,000 and \$1 million.

Other major 'landmark' properties in the study area include the Henry Hanger factory valued at \$484,800 (\$5.29 psf), the "Blue Whale" warehouse fronting on Belknap Street valued at \$586,200 (7.87 psf), Corriveau- Routhier's two parcels valued together at \$824,800, the Triangle Pacific complex (former Gregg Brothers mills) valued at \$1,022,600 and the MacDonalds restaurant on East Hollis valued at \$1,074,000.

There are several parcels in the study area that are tax-exempt, including properties owned by one or more churches or charitable organizations as well as municipally-owned land.

APPENDIX B: Proposal for Intersection Improvements in Hudson

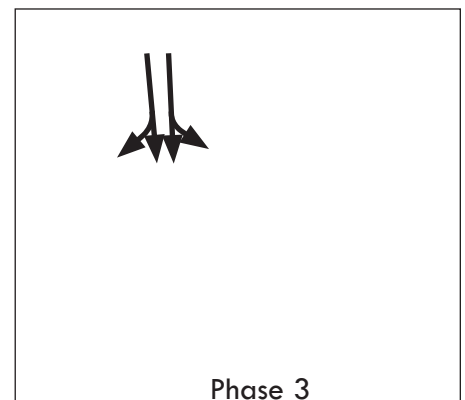
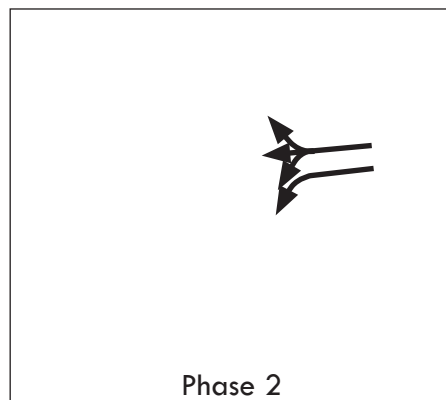
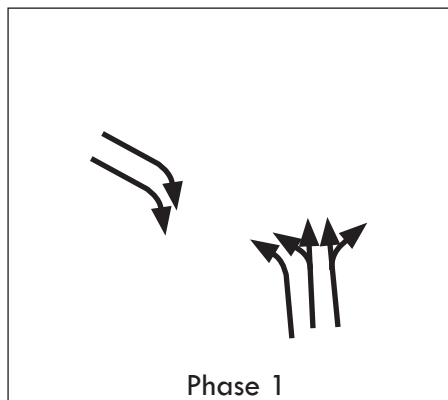
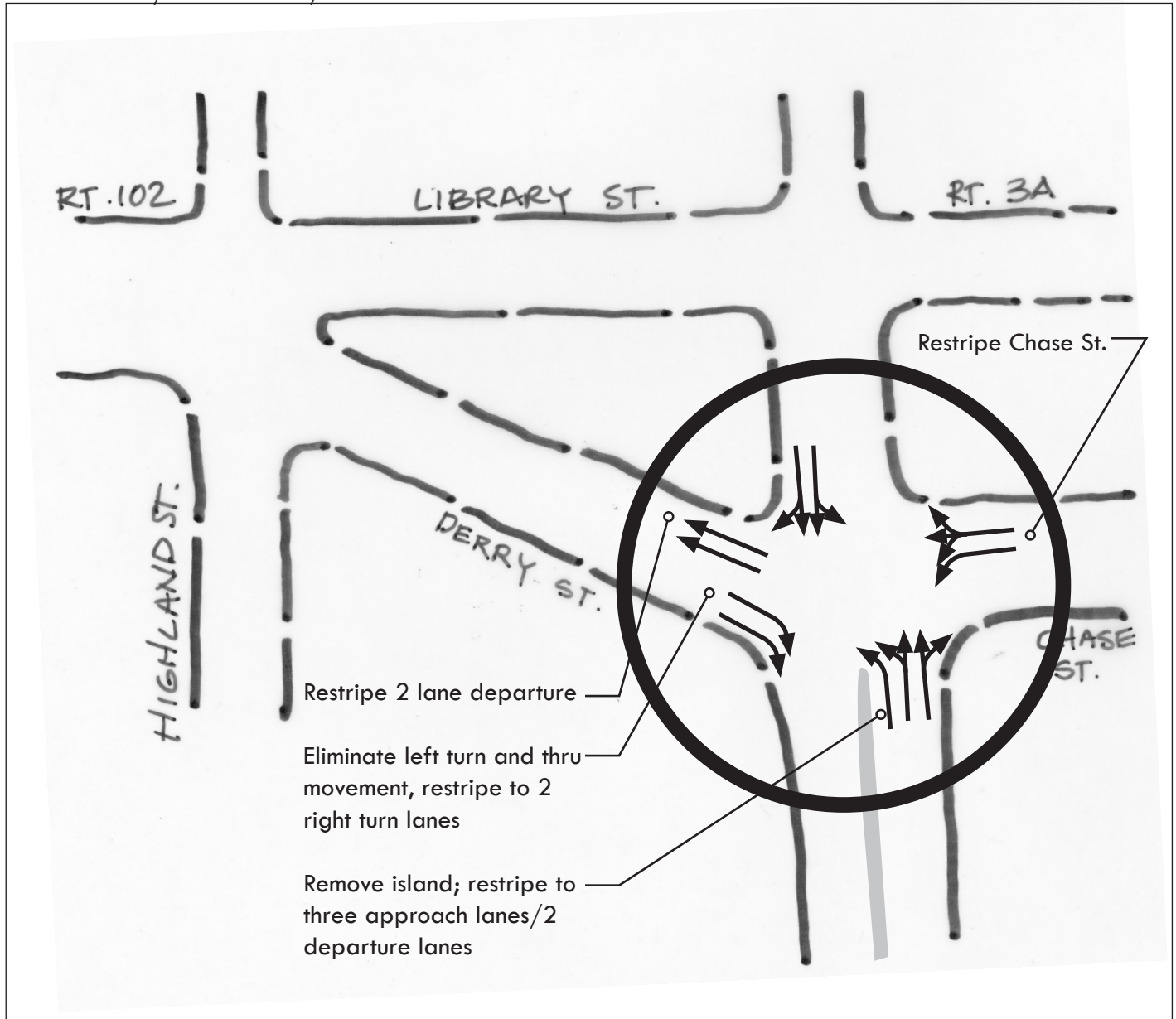




EAST HOLLIS STREET AREA PLAN

Recommendations for Intersection Improvements, Hudson, NH - Howard/Stein-Hudson Associates, Inc.

DERRY STREET/FERRY STREET/CHASE STREET

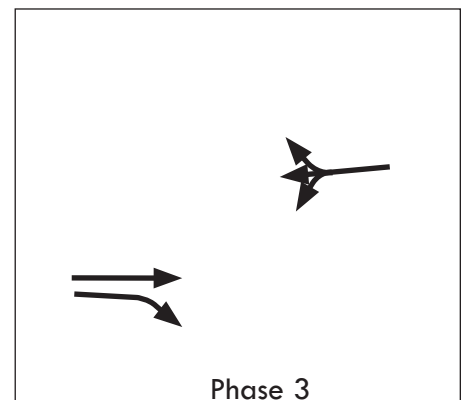
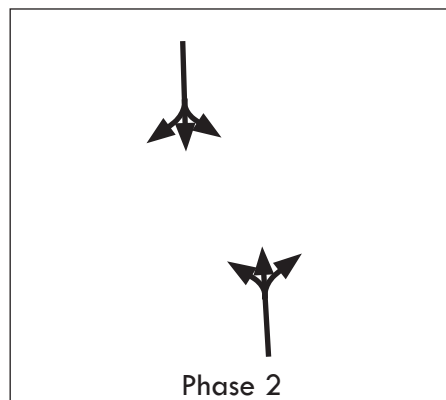
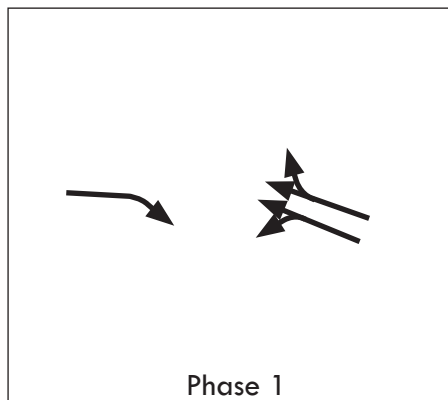
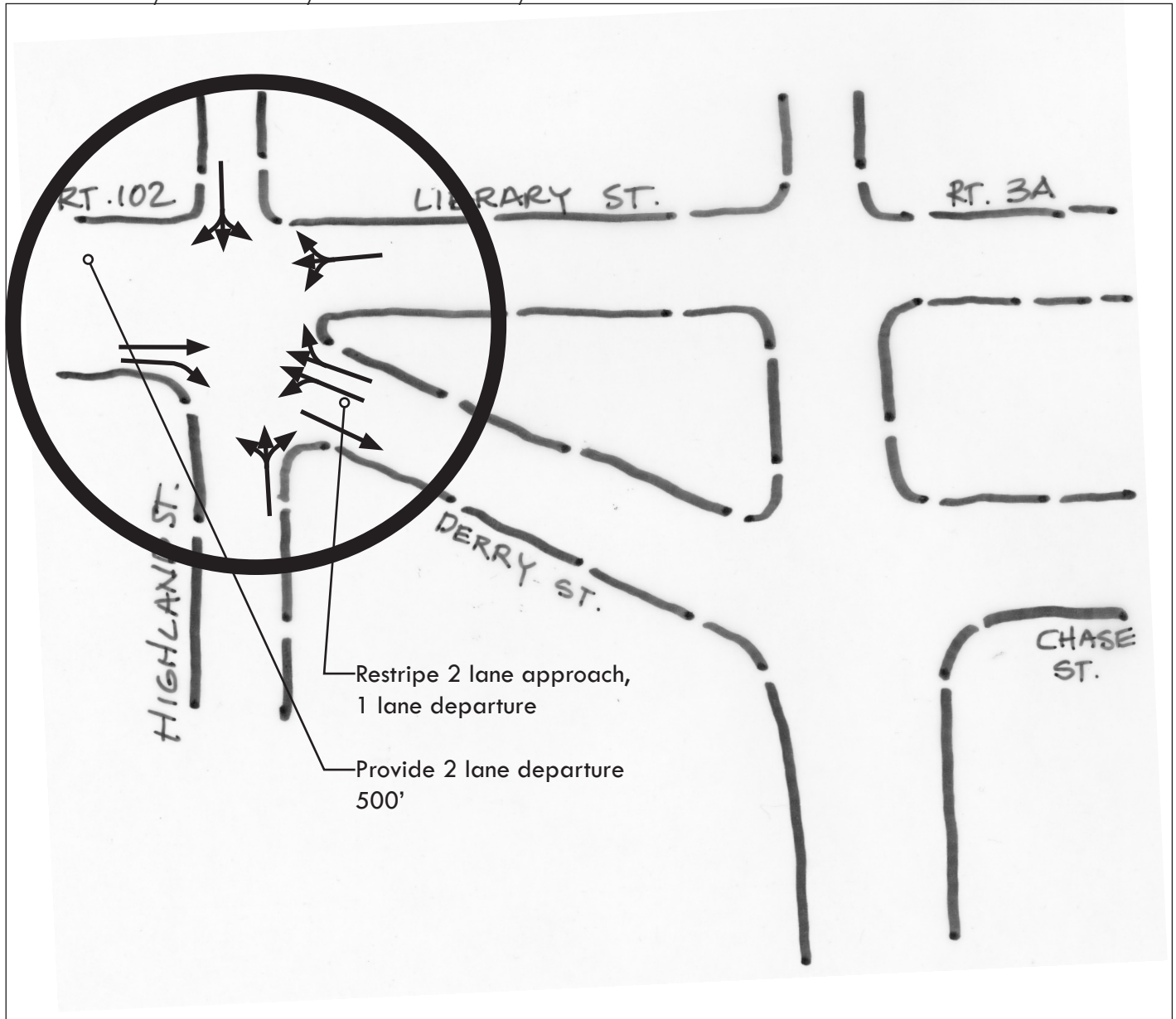




EAST HOLLIS STREET AREA PLAN

Recommendations for Intersection Improvements, Hudson, NH - Howard/Stein-Hudson Associates, Inc.

DERRY STREET/DERRY ROAD/HIGHLAND STREET/LIBRARY STREET

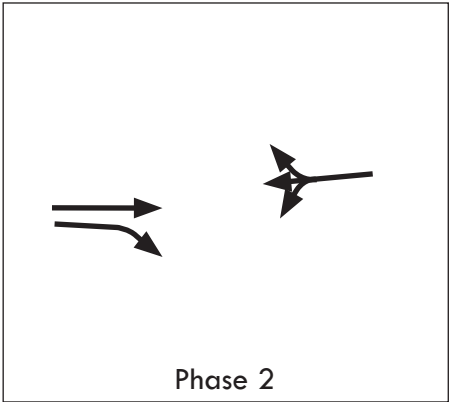
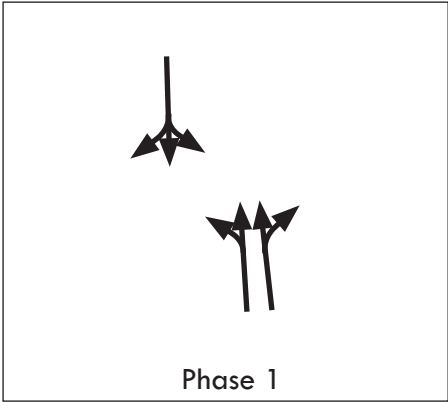
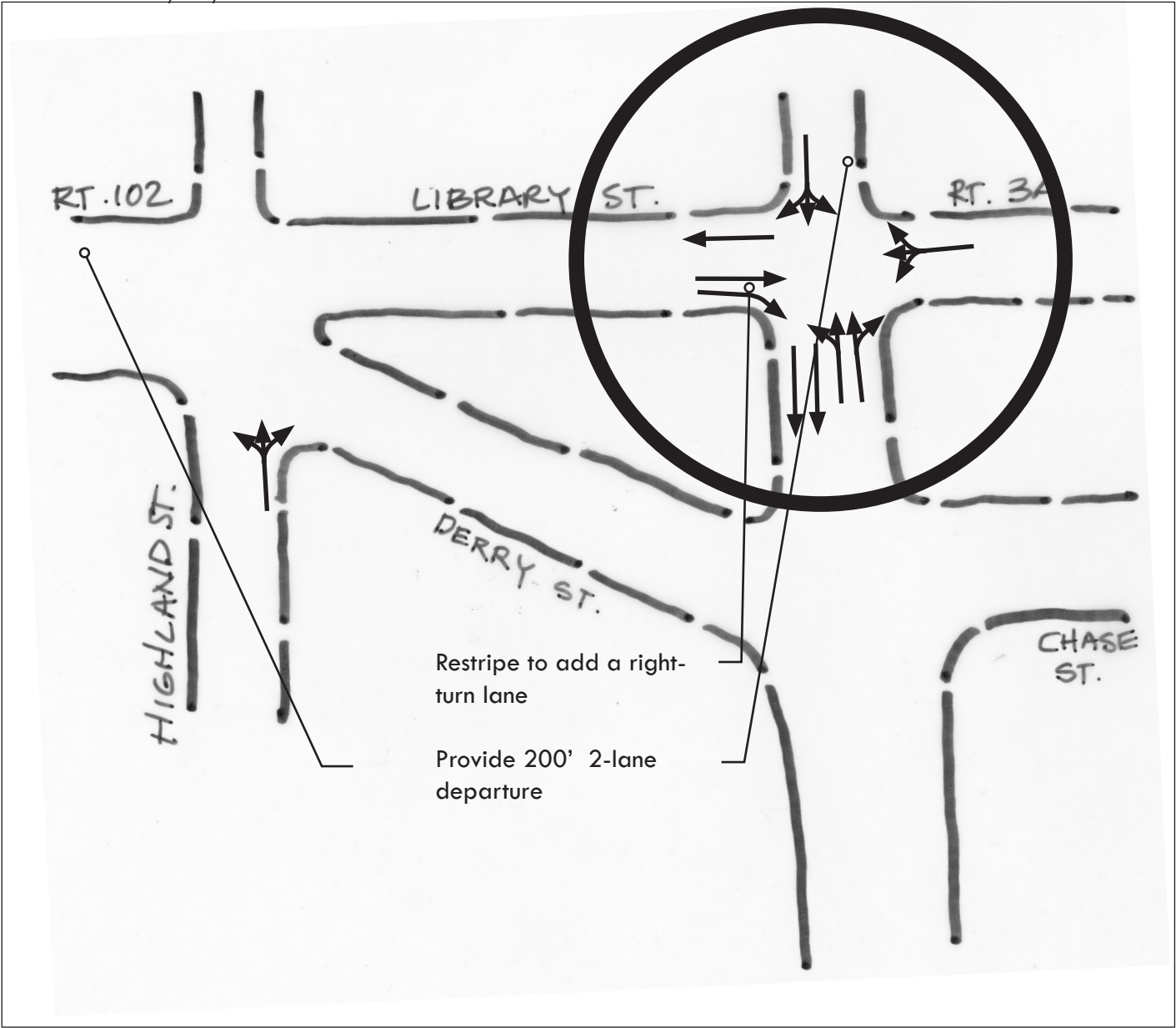




EAST HOLLIS STREET AREA PLAN

Recommendations for Intersection Improvements, Hudson, NH - Howard/Stein-Hudson Associates, Inc.

LIBRARY STREET/3A/FERRY STREET



APPENDIX C: Land Use and Development Goals





EAST HOLLIS STREET PLAN

LAND USE AND DEVELOPMENT GOALS

MAY 30, 2003

1. HOUSING

- **EXPAND OWNERSHIP OPPORTUNITIES**
- **CREATE A DIVERSE SUPPLY – RENTAL, OWNED, UNIT SIZES, AFFORDABILITY, UNIT TYPES**
- **DEVELOP AT DENSITIES THAT SUPPORT RAIL TRANSIT**

2. INDUSTRIAL/COMMERCIAL

- **SUPPORT AND INCREASE JOBS AND WAGE LEVELS BASED IN DISTRICT**
- **IMPROVE AESTHETICS OF THESE USES**

3. MIXED USE

- **CREATE VIBRANT, WALKABLE MIXED USE NODES**

4. OPEN SPACE/NATURAL RESOURCES

- **INTEGRATE COMMUNITY OPEN SPACES, CONNECTED BY WALKING/BIKING PATHS, THROUGHOUT THE DISTRICT**

5. HISTORIC PRESERVATION

- **IDENTIFY KEY HISTORIC RESOURCES FOR REUSE, AS MARKERS OF NASHUA'S IDENTITY**

6. RAIL STATION

- **CREATE A RAIL STATION, INTEGRATED WITH TRANSIT-SUPPORTIVE USES, THAT SERVES THE RESIDENTS AND WORKERS OF EAST HOLLIS STREET AREA AND DOWNTOWN NASHUA**

APPENDIX D: Station Site Evaluation and Program





EAST HOLLIS STREET PLAN

STATION SITE SELECTION

JULY 31, 2003

		1 Crown Street/Triangle Pacific	2 Central, between Bridge and East Hollis	3 Waterfront, north of Bridge
1	Proximity to existing population density (short-term pedestrian and bicycle access)	3	2	1
2	Proximity to sensitive receptors	1	2	3
3	Landmark/civic presence	2	3	2
4	Reconnect subareas within district	1	3	1
5	Development catalyst potential - short term	3	1	2
6	Development catalyst potential - long term	1	3	3
7	Transit-supportive development potential	1	3	3
8	Reinforces preservation of historic resources	3		
9	Accessibility - Vehicular	1	3	3
10	Traffic Impacts - Residential areas	2	1	1
11	Necessary infrastructure costs	3 New access roads	1 Realign Bridge Street New access roads Realign rail for high platforms	1 Realign Bridge Street New access roads Realign rail for high platforms
12	Land acquisition cost (guess)	3 Existing business	3 Existing business	1
	TOTAL	24	25	21

1. Proximity to existing population density (reflects on short-term pedestrian and bicycle access)

- 1 – least central to existing densities
- 2 – moderately central to existing densities
- 3 – most central to existing densities

2. Proximity to sensitive receptors

- 1 – close proximity to residences
- 2 – moderate proximity to residences
- 3 – not proximate to existing densities

3. Landmark/civic presence

- 1 – less visible to people passing through district
- 2 – moderately visible to people passing through district
- 3 – highly visible to people passing through district

4. Reconnect subareas within district

- 1 – station would not be a land use link between subareas in the district
- 2 – station would be a partial land use link between subareas in the district
- 3 – station would be a strong, active land use link between subareas in the district

5. Development catalyst potential – short term

- 1 – Development likely to occur subsequent to station operation
- 2 – Some development may occur concurrent with station
- 3 – Some development likely to occur concurrent with station

6. Development catalyst potential – long term

- 1 – Would mainly require redevelopment of existing uses
- 2 – Redevelopment of existing uses is balanced with vacant parcels available for development
- 3 – Ample vacant area nearby for development

7. Transit-supportive development potential

- 1 – Limited opportunity for higher-density housing and retail in the near term due to limited visibility and vacant parcels for development
- 2 – Moderately (1 major corridor) visible and accessible site with vacant areas for development
- 3 – Highly (2 major corridors) visible and accessible site with vacant areas for development means high potential

8. Reinforces preservation of historic resources

- 1 – Station implementation adversely impacts some historic structures
- 2 – Station implementation does not adversely impact historic structures
- 3 – Station implementation is also a historic reuse

9. Accessibility – Vehicular

- 1 – Station is on no major road corridors
- 2 – Station is on a major corridor
- 3 – Station is on two major road corridors

10. Traffic Impacts – Residential areas

- 1 – Station location would require traffic on limited residential streets and may encourage cut-through traffic
- 2 – Station location would require traffic on no residential streets and may encourage cut-through traffic
- 3 – Station location would require traffic on no residential streets and will likely not encourage cut-through traffic

11. Necessary infrastructure costs

- 1 – Station location may require new rail alignment and substantial new roadways for optimum operation
- 2 – Station location may require new rail alignment and minor new roadways for optimum operation
- 3 – Station location will minor new roadways for optimum operation

12. Land acquisition cost

- 1 – Station location requires business relocation or parcel assembly
- 2 – Station location is largely vacant but requires assembly
- 3 – Station location is on city-owned property

A: Station at Crown Street

There are two existing, seemingly underutilized structures at Crown Street with potential for reuse in a mixed-use/train station development – Triangle Pacific, and 29 Crown Street.

The rail is relatively straight in this location, avoiding the high cost and disruption of realigning rail.

This location is located most centrally within existing population, but, the parcels nearby are mainly small and built out. Assembly and redevelopment into denser uses (transit-oriented densities) would likely occur more slowly due to this obstacle. The catalyst effect of the station's activities would also be diminished, and likely more oriented to residential uses that commercial/industrial in this location, due to the character of the surrounding residential uses.

This location is not accessible or visible directly from one of the main travel corridors through the area – East Hollis or Bridge streets. A new road from Bridge to East Hollis and connecting to Crown Street would facilitate access to the station, but this location diminished the

station's presence within the district as a center, even to the extent that the retail uses located there would have a much limited market on which to draw, threatening their existence.

B: Station between East Hollis and Bridge

There are two key constraints in this location: one, the existing curvature of the rail alignment, and two, lack of sufficient distance between the two roads to fit 800' platforms.

- 1) The existing curvature in the rail precludes use of state-of-the-art high platforms. Whereas the platform would curve, the rail cars are actually a series of straight segments, creating gaps between rail car exits and the platforms that do not conform to safety or ADA requirements. It may be possible to use low platforms and "mini-highs", or small raised platforms that allow access to one rail car, but this would be contrary to the MBTA's recent trends. The alternative, realigning the rail, is an expensive proposition, requiring considerable right-of-way assembly and capital investment.
- 2) A short segment of Bridge Street could be realigned to create the necessary 800' for regulation MBTA platforms at that location. Little assembly would be required, as the only two parcels impacted would be a city-owned parcel and one large, privately-owned parcel.

The benefits of this location are considerable. The range of sites identified between Bridge and East Hollis share high levels of visibility and accessibility. These sites are centrally located within the district, and in close proximity of vacant areas that may be available for development in the shorter term due to the fact that they are large and unoccupied. These sites are within walking distance of many residences in the district as well, as well as much of the opportune areas for redevelopment.

The central location also affords maximum opportunity and flexibility for station and development access, because both roadway corridors through the area may be used to access the station.

C: Station north of Bridge (waterfront)

The key constraints in this location is the existing curvature of the rail alignment. The existing curvature in the rail precludes use of state-of-the-art high platforms. Whereas the platform would curve, the rail cars are actually a series of straight segments, creating gaps between rail car exits and the platforms that do not conform to safety or ADA requirements. It may be possible to use low platforms and "mini-highs", or small raised platforms that allow access to one rail car, but this would be contrary to the MBTA's recent trends. The alternative, realigning the rail, is an expensive proposition, requiring considerable right-of-way assembly and capital investment.

The station in this location creates a center of activity furthest away from the majority of existing residences, which limits immediate ridership but may decrease the perception of impact on residential neighborhoods. The peripheral center also pulls traffic furthest from the

neighborhood. Half of the quarter-mile area is on the other side of the Nashua River, greatly hampering access for a large area to the station.

Another advantage is a City-owned parcel available in the area for a station, infrastructure or development.

One alternative that would create additional access and development potential in this area would be to create a “by-pass” road, parallel to Bridge Street, that could be designed to carry the majority of traffic from the Taylor Falls Bridge. This would extend the edge of the district further north, and enhance the development potential of the waterfront. The road could be designed at-grade, adding another at-grade rail crossing, but could also be designed with a grade-separated crossing with development that masks it and makes the transition from viaduct level to ground level.

**von grossmann & company**

with

Howard/Stein-Hudson, Inc.

Michael Radner Design

RKG Associates

SAS/Design, Inc.

DRAFT SPACE PROGRAM**Nashua Commuter Rail/Intermodal Center**

4/30/2003 10:06

A. BUILDING PROGRAM**1. INTERMODAL - PUBLIC USES**

1.1 Common Waiting Area / Public Space					
Total Peak Pax (150) x 50% = 75 PAX x 15 sf	75	15	1,125 sf		
1.2 Visitor Center					<i>rentable</i>
1 office @ 150 sf ea.	1	150	150 sf		
Exhibit Area			150 sf		300 <i>shell only</i>
1.3 Public Restrooms					
2 x 600 sf ea.	2	300	600 sf		
1.4 Public Telephones					<i>rentable</i>
5 phones at 10 sf each	5	10	50 sf		
1.5 Ticket Sales					<i>rentable</i>
2 tix positions @ 10' ea. x 10' deep	2	100	200 sf		
1.0 Subtotal Intermodal Public Uses:			3,067 sf		3,067 sf

2. OPERATIONS OFFICES (shell only)**RENTABLE**

2.1 Supervisor/Operations Offices					
open office work area	15	10	150 sf		
2.2 Ops Storage					
3 at 10' x 10'	3	10	300 sf		
2.0 Subtotal Operations:			450 sf		450 sf

3. TRANSIT-SUPPORTIVE SERVICE RETAIL (shell only)**RENTABLE**

3.1 Service Retail 1					
1 Unit x 800 sf	800	1	800 sf		
1 Storage	100	1	100 sf		900
3.2 Bank ATM					
1 ATM machines (incl svc access) x 25 sf	25	1	25 sf		
Queue Space			25 sf		50
3.3 Service Retail 2&3					
2 Unit x 400 sf	400	2	800 sf		
Storage / Work	100	2	200 sf		1,000
3.4 Other Transit-Supportive Retail					
allow	200	2	400 sf		400
3.0 Subtotal Service Retail:			2,350 sf		2,350 sf

5. OTHER USES (shell only)**RENTABLE**

5.1 Private Taxi / Limo Counter / Office Dispatch					
1 at 200 sf			200 sf		
5.0 Subtotal Other Uses			200 sf		200 sf

6. SUBTOTAL ALL USES

6.0 Total Net Area all Uses:					6,067 sf
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7. GENERAL CIRCULATION

7.0 Total Net Area x 40%			35.00%		2,123 sf
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8. MECH / SERVICE SPACES

8.0 Total Use Area + General Circulation x 15%			15.00%		1,229 sf
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9. TOTAL GROSS BUILDING AREA

9.0 Total Gross Building Area Required:					9,419 sf
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Probable Cost: as unit price summary

Probable Cost: @ \$250/sf \$250 sf \$2,354,754

B. SITE DEVELOPMENT PROGRAM

10. Passenger Platform

10.1 Passenger Platform

12' wide x 800' long	12	800	9,600 sf
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10.2 Canopy

Covered Waiting @ 12' wide x 90' long	12	90	1,080 sf
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10.3 Grade-separated Passenger Crossing

10.0 Subtotal Passenger Platform		9,600 sf	9,600 sf
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11. Bus/Van Parking / Loading

11.1 Demand Response Van

1 Parallel Parking Berth at 12' wide x 30' long			720 sf
2 Pedestrian Sidewalk Access 10' wide x 30' long			600 sf

11.2 Bus Berths

2 Berths @ 10' wide x 45' long	450	2	900 sf	2,250
Pedestrian Platform 2 @ 15' x 45' long	675	2	1,350 sf	

11.3 Vehicular Circulation at Bus Berths

Drive Aisle @ 12' wide x 140' long	12	140	1,680 sf
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11.0 Subtotal Van Parking / Loading		5,250 sf	5,250 sf
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12. Other Vehicular Parking / Loading

12.1 Taxi Parking / Loading

1 Taxi Parking / Queue Spaces @ 12'w x 25'l			300 sf
Pedestrian Sidewalk Access - 1 @ 10'w x 25'l			250 sf

12.2 Automobile Parking / Loading

2 Auto Drop-off Spaces @ 12'w x 25'l			600 sf
Pedestrian Sidewalk Access - 5 @ 10'w x 25'l			500 sf

12.3 Park and Ride

300 Park and Ride Spaces	250	350	87,500 sf
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12.4 Vehicular Circulation at Taxi / Automobile Loading

Drive Aisle @ 12' wide x 200' long			2,400 sf
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12.0 Subtotal Other Vehicular Parking / Loading		91,550 sf	91,550 sf
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13. Total Above Uses

13.0 Total Net Area All Uses			106,400 sf
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14. General Vehicular and Site Circulation / Buffer / Setbacks / Landscape

14.0 Total Net Area x 35%	35.00%		37,240 sf
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15. Total Gross Vehicle / Site Program Area

15.0 Total Gross Vehicle Program Area			143,640 sf
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Subtotal Bus Operations/Passenger Area Cost:

TOTAL PROBABLE CONSTRUCTION COST:

C. PARKING PROGRAM

C1	Park and Ride	250	cars	w/site acquisition
C2	Retail Parking:	0	cars at 4/1000sf	assume transit-oriented/none provided
C3	Visitor Parking:	0	cars	assume none provided
C4	Employee Parking:	22	cars 1 per employee	
C5	Joint Development Parking:	0	cars	none provided
C	Total Parking Required	272	Total Cars at 350 sf/car	95,200 SF

PROGRAM SUMMARY (MAX PY 2020):

Total Building Area Required:	9,419 sf
Total Vehicular, Bus Berthing and Site Circulation Required:	143,640 sf
Add Landscape and Open Space:	5,000 s.f.
Allowance for Additional Site Circulation:	5,000 s.f.
Allowance for Parking:	31,733 sf

TOTAL SITE AREA REQUIRED:	194,792 gsf
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TOTAL SITE ACREAGE NEEDED approx. acres: 4.5

APPENDIX E: Economic/Market Analysis of Study Area

*(including Inventory of Vacant and
Underutilized Parcels)*





EAST HOLLIS STREET PLAN

Economic/Market Analysis of Study Area

August 21, 2003

This chapter summarizes the findings of RKG's on-going market and economic analysis relative to the East Hollis Street Area Plan and the draft recommendations for the alternative redevelopment options that the team has been discussing. It provides an economic analysis of market demand for uses within the district and the region, with a summary of strategies for the short and long term redevelopment of the area.

Residential

Existing Conditions

The East Hollis Street study area contains a wide variety of housing types, including single family dwellings, condominiums and apartments. Most residential dwellings are in older buildings (more than 40 years old) although many have been updated and improved over the past decade. The area is considered to be one of Nashua's few remaining "affordable" neighborhoods, where housing costs are within reach of many of the City's working class residents. As an urban neighborhood, residential buildings tend to be on small lots, many with no (or very small) driveways, requiring residents to park on the streets or in other locations. Single family homes tend to be located in the southern portion of the study area while the core contains several enclaves of multi-family homes primarily in 2, 3 and 4 unit buildings.

According to the assessment records of the City, the study area contains approximately 944 residential housing units on 415 parcels covering 67.2 acres, or 33% of the study area. These units are primarily multi-family with 57% in 2-4 unit buildings, 17% in 5-9 unit facilities and 10% in larger 10+ unit complexes. The average density of residential units in the study area is approximately 14 dwelling units per acre. Residential property makes up approximately 58% of the \$89 million in total assessed value for the study area.

There are 140 single family homes in the study area, or 15% of the total dwellings. Assessed values for these properties range from under \$30,000 per unit for the larger complexes to just over \$105,000 for single family houses. Based on recent sales activity in Nashua, the assessed value for tax purposes is less than actual market value, with some more recent sales transacting at prices 75% to 100% higher than the assessed value.

Development Potential

The study area is, for the most part, almost completely built out. According to the assessor's database, there are only 16 vacant residential parcels in the study area, with a total area of 3.7 acres. If developed at the average current density, this could result in an additional 50 housing units. Additional residential development will require either redevelopment of existing property to higher density levels, or conversion of non-residential properties. Many of the non-residential properties in the study area include vacant land that may be suitable for new residential construction, or contain vacant or underutilized buildings that could be torn down or



EAST HOLLIS STREET PLAN

renovated for housing. Some of the older mill-style structures such as the Henry Hanger building or the former Gregg Brothers mill, may be adaptable to residential uses. The former Beebe Rubber industrial building on East Hollis was torn down last year for the development of age-restricted housing and commercial uses. Similarly, the Public Service of New Hampshire substation off of Canal Street includes several vacant acres along the river that might be suitable for new housing development.

However, the neighborhood currently lacks many of the features or amenities that are associated with residential uses, including schools, churches and neighborhood groceries and services although these services are generally available elsewhere in downtown Nashua. These type of activities typically follow the development of a sufficient number of housing units within a small geographic area.

With house prices and rents throughout southern New Hampshire rising rapidly, the need for affordable housing is of critical concern. Rising incomes along with a resurgence in demand for in-town housing by young and old professionals, has led to the development of market rate and luxury housing units in the downtowns of many New Hampshire cities. These new or rehabilitated units tend to be priced at levels above what is considered "affordable" and results in what is sometimes termed "gentrification" of neighborhoods, where long-time low and moderate income residents are displaced by those with higher incomes. While there is no indication that this is occurring in the study area, the advent of a regional transit station may serve as a catalyst for the development of more market rate housing and the possible introduction of luxury housing, particularly along the riverfront.

According to the 2000 Census, the median household income in the study area was \$34,282, which if inflated at 3% per year would be approximately \$37,500 today. This compares to the citywide median household income of \$51,969 in 2000, or nearly \$57,000 today. The federal government recommends that to be "affordable", housing costs should not exceed 30% of household income (rent plus utilities or mortgage plus taxes). Therefore, a family or household at the median income level in the study area should not be paying more than \$938 per month for housing and \$1,425 for someone at the citywide median income level. Current rent levels in the study are estimated to range from approximately \$600 per month for a small, studio or one bedroom unit, to \$1,200 per month for larger, 3+ bedroom units. Prices of residential properties that sold in the study area in 2001 and 2002 range from about \$75,000 to nearly \$300,000, with single family homes going for \$130,000 to \$170,000 and apartment 2-6 unit buildings selling for \$30,000 to over \$90,000 per unit. This indicates that the study area has been relatively affordable to a wide range of household incomes.

The demand for housing in Southern New Hampshire, and in particular "affordable" housing, has been extremely strong over the past few years. Driven by very low interest rates and rising prices, people are buying homes both for their functionality as well as for investment purposes, since real estate continues to outperform other investments such as stocks and bonds. Increasingly, both young professionals, older "empty-nesters", singles and young families are looking at urban living for a variety of reasons, including price affordability, convenience to schools and shopping, the desire for a sense of "neighborhood" as well as the proximity to social and cultural attractions. As a result, more and more people are buying or renting their first homes or are returning to in-city neighborhoods.



Commercial/Industrial

Existing Conditions

There are 127 non-residential parcels of land within the study area containing a total of 133.4 acres. These include 44 commercial, 7 government and 5 charitable properties containing 26% of the total area, along with 8 industrial, 18 warehouse, 23 auto-related, 7 utility and 15 vacant land parcels making up 64% of the non-residential land area.

Commercial activities include a variety of retail and service-oriented businesses such as restaurants, clubs, barbershops, bakeries, a bank, convenience stores among others. These businesses serve not only local residents but also the larger Nashua and regional markets. Auto-related uses include used car dealerships, repair and service stations as well as a rental car outlet. Commercial uses are scattered throughout the study area, primarily along the major arterial streets. There are several small service businesses located in the “Alphabet” neighborhood, occupying mixed-use residential structures.

Industrial uses include a variety of warehouse and distribution operations and light manufacturing, along with a concrete batch plant and a retailer/distributor of construction stone and related products. Also considered as an “industrial” use is a large electric power transformer owned by Public Service of New Hampshire and a natural gas distribution facility owned and operated by Keyspan Energy. These uses are also distributed throughout the study area, with the majority located north of East Hollis Street.

The more predominant commercial/industrial properties include the following:

- Industrial complex on Spruce Street owned by Nash Family – this cluster of several older buildings on approximately 6 acres is currently vacant.
- Triangle Pacific (former Gregg Brothers) mill – This complex on Crown Street includes a large, multi-story abandoned mill building and some active industrial or warehouse space on over 7 acres adjacent to the rail line.
- Henry Hanger Company – this five story brick mill building on East Hollis is perhaps the most visible commercial use in the study area but appears to be largely vacant.
- Blue Warehouse – this large metal structure located between Bridge and East Hollis Streets is an active warehouse.
- Riverside Properties – this complex of several older industrial buildings on Bridge Street includes the former Maine Manufacturing offices and facilities, and is currently in use by several small companies for a wide variety of purposes.
- The former Beebe Rubber factory – this large industrial complex on East Hollis at Marshall was recently torn down and is reportedly being developed for age-restricted housing (market rate) with retail sites along the East Hollis Street frontage.
- Corriveau-Routhier – This company sells stone products to homeowners and contractors from its showroom and large yards located on Temple Street.
- Redi-Mix plant – this facility is located on Commercial Street and mixes concrete for delivery throughout the city and region.
- Chagnon Lumber Yard – this Temple Street business sells retail and wholesale lumber and related products.

Employment statistics are only available at the City and regional level, not specifically for the study area, therefore it is unknown how many jobs existing within the study area.



Development Potential

According to the assessor's database, there are 15 parcels containing a total of 15.6 acres of undeveloped commercial land in the study area. This includes the 4.8 acre Beebe Rubber site which is scheduled to be redeveloped, and a 3.2 acres site on Bridge Street owned by the City of Nashua and used for recreational purposes. The remaining vacant sites are relative small (typically under an acre) and new development on them may be constrained.

Any new commercial or industrial development in the study area will most likely take place through the conversion of residential uses to commercial, primarily along the main streets, or through the redevelopment of existing structures either by way of renovation or demolition and new construction. The following section describes in more detail the area's major vacant and underutilized properties along with potential redevelopment options.

The demand for commercial real estate is dependent on many factors including general economic conditions, the location of a firm's customer base, the availability and skills of the workforce needed by a company as well as on the ability of suppliers, employees, customers and other to access a particular facility. Many of the existing commercial businesses that are located in the study area are dependent to some degree on the traffic that flows through, primarily on East Hollis and Bridge Streets. Others rely on having a local labor force that has the skills they need. Others are there for economic reasons that have since changed – such as access to rail – or because the space they occupy is relatively inexpensive.

The majority of new commercial development that has occurred in Nashua over the past decade has occurred along major arterial highways on the perimeter of the City, mainly around Spit Brook Road to the south or Amherst Street to the north. Easy access to Route 3 appears to be a common denominator for much the more recent growth. Within the downtown, new development has been less active, with some in-fill redevelopment of sites along with rehabilitation and changes of use to existing businesses. Within the study area, there has been very little new development, with the on-going Beebe Rubber plant redevelopment being the largest and most dramatic change. The cost to redevelop older buildings (either by demolition or rehabilitation) tends to be higher than building new facilities on a "greenfield" site, particularly if there is the potential need for dealing with hazardous materials (so-called "brownfields"). As a result, there has been little new commercial activity within the older parts of Nashua.

As the cost of commercial land continues to increase in the region, the cost differential between new construction and redevelopment will continue to narrow, leading to the potential for increasing demand for commercial facilities – both retail and service businesses as well as industrial applications, within the study area. However, the lack of easy and convenient access to the regional highway network, the existing traffic delays and the overall condition of the existing building stock will continue to dampen demand for commercial uses in the area.

Vacant and/or Underutilized Parcels

There are several real estate parcels located within the study area that are currently vacant or are considered by the consultants to be underutilized *relative to the future potential as expressed in the planning process*. Many of these parcels are currently being utilized for a variety of industrial and warehouse type activities and are an active part of the economic base of the neighborhood and may, in fact, have substantial value – both for tax assessment purposes as well as a value-in-use to the owner/tenant. Some of the existing buildings on the parcels are currently largely vacant.



EAST HOLLIS STREET PLAN

All of the parcels included below are considered as vacant or underutilized herein based on the consultant's estimate of the highest and best *future use*, given the assumption that land uses will ultimately change, possibly as a result of transit oriented development induced by the location of a new commuter rail station.

The reuse potential of each of the parcels is indicated for both the short term (0-10 years) as well as for the long term (10+ years), assumed to be after the rail service is activated and the train station is constructed.

Vacant Parcels

Parcel ID (TaxID)	41-1
Address/Location	1 Jackson Square
Parcel Size (Acres)	14.4 acres
Current Use	Electrical substation + vacant land
Owner	Public Service of NH
Ass. Value - Land	\$406,600
Ass. Value - Bldg	\$14,100
Total Value	\$427,700
Reuse Potential	Short Term: discuss options with PSNH, Phase 1 environmental evaluation Long Term: subdivide and develop excess land along river for upscale housing (30-40 units?). Plan would need to shield substation. Abutting vacant parcel on Bridge St. is town-owned and could be included

Parcel ID (TaxID)	39-32 & 40-37
Address/Location	40 Bridge St & 10 Sanders St
Parcel Size (Acres)	2.78 ac + 0.8 acres
Current Use	Vacant - recreation (soccer field)
Owner	Cit of Nashua
Ass. Value - Land	\$738,800 + \$175,800
Ass. Value - Bldg	\$0
Total Value	
Reuse Potential	Short Term: recreation Long Term: possible transit station site, parking, commercial or residential development, mixed use (along street frontage)

Parcel ID (TaxID)	40-34 & 40-48
Address/Location	Bridge Street & Bancroft Lane
Parcel Size (Acres)	8.5 acres + 1 acre
Current Use	Vacant land & skateboard park
Owner	City of Nashua
Ass. Value - Land	\$338,100 + \$186,900
Ass. Value - Bldg	\$0 + \$325,000 (skateboard park)
Total Value	Short Term: passive recreation and continued operation of skateboard park
Reuse Potential	Long Term: develop residential (mid rise building) along river (inside of levy) - 30-50 units. Move skateboard park to another location in neighborhood, if needed



EAST HOLLIS STREET PLAN

Parcel ID (TaxID)	23-22 & 23-26
Address/Location	55-65 Crown Street
Parcel Size (Acres)	3.33 + 2.86 = 6.19 acres
Current Use	Vacant land, small industrial facility
Owner	Ferris, Alexander
Ass. Value - Land	\$160,100 + \$198,500
Ass. Value - Bldg	\$108,800 + \$0
Total Value	\$358,600
Reuse Potential	Short Term: Keep as is Long Term: Depends on plan --- good location for light industrial/flex-tech or office (2-3 stories) - 40-50K SF. Also good residential location for mid-rise condo - 30-40 units

Vacant/Underutilized Structures

Parcel ID (TaxID)	37-6
Address/Location	103 Temple Street
Parcel Size (Acres)	6.14 acres
Current Use	Warehouse, industrial Vacant and for-sale
Owner	Nash Family Investment Properties
Ass. Value - Land	\$590,800
Ass. Value - Bldg	\$816,100
Total Value	\$1,406,900
Reuse Potential	Short Term - warehouse, light industrial Long Term - conversion to mixed-use demolish most improvements, leaving 3 story mill and (possibly) two 1-story buildings on Temple (if physically sound). Develop a variety of in-fill mixed-income residential units with neighborhood oriented retail and services. Possible office/retail/artist lofts 50 - 70 units of housing + 30,000 commercial

Parcel ID (TaxID)	25-1 & 23-1
Address/Location	25 Crown Street - old Gregg Bros. mill
Parcel Size (Acres)	5.88 acres + 1.2 acres
Current Use	Industrial, warehouse + vacant mill + vacant land A portion of the building (the 1 story addition on the west side of the property) is currently in use for the assembly and sale of cabinets, and some office space may be being utilized. The main mill building and the upper floors appear to be vacant.
Owner	Triangle Pacific
Ass. Value - Land	\$411,300 + \$114,600
Ass. Value - Bldg	\$611,300 + \$0
Total Value	\$10,022,600 + \$114,600
Reuse Potential	Short Term: Continued rental to existing small businesses. Possible short-term leases to other businesses. Recommend feasibility study regarding redevelopment potential (engineering/architecture, environmental Phase 1) Long Term: Possible train station + mixed use Retail, office/flex-tech and condos or apts in 3 story mill, new construction and parking in rear. Also potential for institutional use (tech school, gov't offices)



EAST HOLLIS STREET PLAN

Parcel ID (TaxID)	39-1 Henry Hanger Co.
Address/Location	110 East Hollis St.
Parcel Size (Acres)	0.57 acres bldg: 16,825 sf/floor X 5 = 84,000 SF
Current Use	Industrial, partially vacant
Owner	Henry Hanger
Ass. Value - Land	\$114,000
Ass. Value - Bldg	\$370,800
Total Value	\$484,800
Reuse Potential	Short Term - continuation of existing business, possible warehousing Long Term - Redevelop into housing or possible office - mixed income, artist lofts (40-50 units) Note - redevelopment may require additional land for parking

Active Sites

Parcel ID (TaxID)	39-29 & 39-37 (Nashua Diner)
Address/Location	200 Temple St.
Parcel Size (Acres)	0.77 ac + 0.72 ac + 1.49 ac
Current Use	Restaurant, parking & vacant (junk yard)
Owner	Rakis Realty Trust &
Ass. Value - Land	\$134,600 + \$161,100 = \$295,700
Ass. Value - Bldg	\$0 + \$198,900
Total Value	
Reuse Potential	Short Term: Remain as is Long Term: Possible rail station site, develop commercial (retail, office)

Parcel ID (TaxID)	39-33 (Blue Whale)
Address/Location	39 Bridge Street & Belknap Street
Parcel Size (Acres)	3.32 acres
Current Use	Warehouse (74,500 sf)
Owner	39 Bridge Street Corp.
Ass. Value - Land	\$213,800
Ass. Value - Bldg	\$372,400
Total Value	\$596,200
Reuse Potential	Short Term: Leave as is Long Term: possible rail station site, rail parking, develop residential or mixed use w/, retail to serve local neighborhood as serve as buffer. Or, if Alphabet continues to transition to commercial uses, use site for office and/or flex space

Parcel ID (TaxID)	39-30 & 39-38
Address/Location	97 Bridge St.
Parcel Size (Acres)	1.3 + 0.34 acres
Current Use	Automotive Salvage yard
Owner	Frametex
Ass. Value - Land	\$198,800 + \$36,200 = \$236,000
Ass. Value - Bldg	\$7,100
Total Value	\$243,100
Reuse Potential	Short Term: Continue as is Long Term: Commercial, parking or mixed use (expansion of Union St. neighborhood)



EAST HOLLIS STREET PLAN

Parcel ID (TaxID)	39-31 + 3935
Address/Location	159 & 158 Temple
Parcel Size (Acres)	3.08 + 1.4 acres
Current Use	Retail, industrial (masonry sales and service)
Owner	Corriveau-Routhier
Ass. Value - Land	\$280,200 + \$172,100 = \$452,300
Ass. Value - Bldg	\$101,100 + \$271,400 = \$372,500
Total Value	\$824,800
Reuse Potential	Short Term: Leave as is Long Term: redevelop for commercial or mixed use, or parking for rail station

Parcel ID (TaxID)	38-93
Address/Location	145-147 Temple Street
Parcel Size (Acres)	4.08 acres
Current Use	Lumber yard
Owner	Chagnon Realty Trust
Ass. Value - Land	\$383,600
Ass. Value - Bldg	\$1,320,800
Total Value	\$1,704,400
Reuse Potential	Short Term: Leave as is Long Term: redevelop for commercial, retail, or residential (extension of Acre neighborhood)

Parcel ID (TaxID)	38-90
Address/Location	15 Commercial St.
Parcel Size (Acres)	2.45
Current Use	Concrete batch plant
Owner	Redi-Mix concrete Services, Inc.
Ass. Value - Land	\$222,100
Ass. Value - Bldg	\$483,300
Total Value	\$705,400
Reuse Potential	Short Term: Continue as is, but work with owner to move from neighborhood Long Term: Residential (extension of Acre neighborhood)

Parcel ID (TaxID)	36-6
Address/Location	50 East Hollis St.
Parcel Size (Acres)	1.4 acres
Current Use	Warehouse, industrial
Owner	50 East Hollis Inc.
Ass. Value - Land	\$313,100
Ass. Value - Bldg	\$330,100
Total Value	\$643,200
Reuse Potential	Short Term: Long Term: redevelop for commercial, retail, or mixed use Also use part for new roadway alignments



Parcel ID (TaxID)	38-88
Address/Location	90 E. Hollis
Parcel Size (Acres)	1.64 acres
Current Use	Warehouse, light industrial
Owner	Jersey Properties
Ass. Value - Land	\$217,900
Ass. Value - Bldg	\$257,700
Total Value	\$475,600
Reuse Potential	Commercial, retail, mixed use Or for new roadway alignments

Suggested Strategies

Overall Goals:

- Support existing employment providers
- Enhance existing tax base
- Enhance job opportunities for residents
- Revitalize vacant and/or under-utilized properties
- Provide additional housing opportunities, including affordable units
- Encourage neighborhood oriented mixed-use development

Specific Proposals

- Encourage the redevelopment of the former McElwain industrial buildings into a mixed-use complex that includes housing, neighborhood retail and services.
 - Potential
 - Existing, underutilized facilities on a large, contiguous lot
 - Possible historic and architecturally unique components
 - Benefits
 - Connects “Acre” neighborhood to downtown residential area
 - Provides for centrally located retail services and employment opportunities (possible location for grocery store and/or farmers market)
 - Opportunity for mixed-income housing, including conversion of 3-story mill to rental/condominium units
- Encourage redevelopment of Triangle Pacific complex (former Gregg Brothers mill) into mixed-use, transit-oriented development
 - Potential
 - Transit station w/ limited parking (200 spaces max)



EAST HOLLIS STREET PLAN

- Office and/or residential units in main building
 - Street front retail along Crown Street
 - Some new construction may be possible
 - Maintain historic architecture/streetscapes
- Benefits
 - Provides attractive connection and transition from Crown Hill neighborhood to Crown Street area
 - Provides live/work opportunities
 - Encourages additional neighborhood investments
- Encourage the redevelopment of the Henry Hanger building to an alternative, higher-valued use
 - Potential
 - Strong residential potential, particularly when/if transit station is developed, or possible future office/ R&D use
 - Parking issue – will likely require additional land to support
 - Benefits
 - Redevelopment will enhance commercial/retail and residential values in upper Crown Street neighborhood
- Relocate Capitol Plumbing Supply warehouse from Temple/ Amory Street corner to another location in the district
 - Potential
 - Retain jobs and commercial activity within the study area
 - Open up waterfront site for residential development
 - Benefits
 - High valued residential development, with affordable component, would help tie Jackson Square neighborhood to Acre and rest of downtown
 - Opportunity for river views and access would help rejuvenate Jackson Square neighborhood
- Acquire land from PSNH and/or Energy North for shared neighborhood parking for Jackson Square residents.
 - Benefit
 - Relieve on-street parking needs, promote safety



EAST HOLLIS STREET PLAN

- Encourage conversion of residential uses in Alphabet to small-scale commercial uses
 - Potential
 - Demand for smaller offices, service businesses and limited specialty retail
 - Concentrated activity in limited area would enhance tax base
 - Gateway location serves broader, regional market
 - Benefits
 - Improves safety by moving residential away from major busy streets (E. Hollis & Bridge)
 - Encourage parcel assemblage for additional density and parking
 - Provide for replacement housing opportunities in other neighborhoods within the study area
- Encourage the redevelopment of the warehouse uses along East Hollis/Hudson Streets into mixed income housing
 - Potential
 - Access issues make current use obsolete and under-valued
 - Market demand for affordable and market-rate housing
 - Benefits
 - Narrow site abuts old rail line proposed for greenway linking study area with downtown, encouraging pedestrian and bike uses
 - Townhouse design with vehicle access from ROW eliminates curb cuts on East Hollis while enhancing neighborhood architecture and design
 - Provides for additional neighborhood housing which enhances retail demand

Approaches to Realizing Economic Development Goals

- Utilize special overlay zone(s) to promote greater density and more flexible land use considerations, or rezone from GI to new flex-use TOD zoning
- Create tax increment financing (TIF) district to apply future enhanced tax revenues to needed infrastructure projects
- Explore other incentives such as employment and affordable housing tax credits, historic rehab monies and federal transit-oriented development grants for public and private investments

APPENDIX F: Sample Language for TOD and Inclusionary Zoning



DRAFT – 6-24-03

16-93 Inclusionary Zoning

Purpose: the City of Nashua finds that:

- *The Regional Housing Needs Assessment (August 1999) prepared by the Nashua Regional Planning Commission (NRPC) identified an acute shortage of rental housing that is affordable for a large number of working households in the region. For low wage households and households on fixed incomes, this shortage creates an immediate and dangerous risk of homelessness. The shortage of affordable housing threatens the city's capacity for economic growth by limiting the ability of workers to locate housing within a reasonable distance of their workplace. It is necessary to encourage the private and non-profit sectors to address the critical shortage of affordable housing by reducing unnecessary regulatory barriers to the development of such housing.*
- *The general welfare of the city, region and state requires that the City's land use ordinances make reasonable provisions for affordable housing.*
- *Inclusionary zoning is expressly authorized as an "innovative" land use control under state law (RSA 674:21). Inclusionary zoning may include, among other things, density bonuses and streamlined application processes for developers providing affordable housing.*

This section implements the following Master Plan recommendations:

- *Maintain a wide variety of housing types, residential densities, and open space, meeting the needs of the full spectrum of our citizens; and*
- *Continue to prevent and address housing discrimination.*
- *Explore opportunities to provide shopping, medical facilities, recreation, and public transportation near high-density housing.*
- *Strive to meet the needs of all citizens seeking owner-occupied housing.*
- *Consider an amendment to the Nashua Revised Ordinance (NRO) to allow Incentive Zoning in targeted areas (i.e. the City would allow residential density in excess of that permitted in the existing or underlying zoning, and require that a certain percentage of additional units be affordable).*
- *Promote continued and expanded homeownership in inner city neighborhoods in support of neighborhood revitalization efforts.*

- *Work to ensure that the stock of rental housing is of sufficient quantity and quality to meet the needs of those desiring this housing option.*
- *Increase the supply of rental housing in the City to meet the needs of all income groups.*
- *Give priority to the rehabilitation of vacant and or substandard inner city residential buildings that can be used as rental housing.*
- *Review the City's Zoning Ordinance to assess opportunities for providing alternative housing designs.*

This section provides a density bonus and other incentives to encourage a broad variety of housing for low and moderate income households in the City.

(a) Applicability

This section applies to any application for development approval within any residential zoning district or district that permits residential uses that include Affordable Housing with the minimum ratio specified in Column (B) of Table 93-1, below.

(b) Definitions

Affordable

As used in this Section, "affordable" means:

- (1) for rental housing, that the rent plus utilities for the dwelling unit does not exceed **30 percent** of the income of the household; or
- (2) for owner-occupied housing, that the total cost of mortgage principal and interest, property taxes, association fees and homeowner's insurance does not exceed **33 percent** of the maximum allowed income of the purchaser. Calculation of housing costs shall be based on current taxes, a 30-year fixed rate mortgage, a 5 percent down payment, and prevailing mortgage rates within the region; or
- (3) for subsidized housing, that the rents do not exceed ***fair market rents***.

Affordable Housing

Any category of housing as defined in Columns (A) and (B) of Table 93-1.

Area Median Income (AMI)

The median income of the Nashua region, adjusted for the number of persons in the household, as determined by the Nashua Regional Planning Commission.

Community housing development organization (CHDO)

As defined in 24 C.F.R. § 92.2, which is hereby incorporated by this reference.

Equity-sharing arrangement

An arrangement by which a homeowner who sells the premises less than 15 years after purchasing it contributes a share of the equity in said home to a CHDO or a non-profit organization, in accordance with written standards promulgated by the New Hampshire housing finance authority.

Fair market rent

The “fair market rent” published annually to by the U.S. Department of Housing and Urban Development pursuant to Section 8(c)(1) of the United States Housing Act of 1937 for Hillsborough County.

Inner City

Any lot, parcel or tract within a contiguous area that: (1) is located within or abuts the “D” Downtown zoning district and is located within a Residential Zoning District; or (2) designated as such by the Planning Board.

Low Income Household

A household whose income does not exceed fifty percent (50%) of area median income (AMI).

Moderate Income Household

A household whose income is more than fifty percent (50%), and does not exceed eighty percent (80%), of area median income (AMI).

Owner-occupied housing

Any dwelling unit intended to be conveyed in fee simple, condominium, or equity-sharing arrangement such as a community housing land trust and limited equity cooperatives.

Rental Conversion

Rental units within a structure that is lawfully converted from a single family home to a structure containing 2 or more dwelling units.

Rental housing

Any dwelling unit intended to be rented , and that is not subsidized housing as defined below.

Subsidized Housing

Any housing subsidized by the state or federal government under any program to assist the creation of rental units.

(c) Affordable Housing Categories and Incentives

(1) A Site Plan or Subdivision Plat may be approved with an increase in the density of the site as set forth in Table 93-1 where requested by the applicant. The applicant shall consent to a voluntary and enforceable condition in which the specified percentage of the developable density of the site, as specified in Column (B) of Table 93-1, is reserved as that category of Affordable Housing designated in Column (B) for the application. In lieu of providing the dwelling units that constitute Affordable Housing, the applicant may

pay a fee equivalent to the cost of constructing the dwelling units into a housing trust fund if established by ordinance of the Board of Aldermen.

(2) Table 93-1 shall be construed as follows:

- A. Determine the category of housing as set forth in Columns (A) and (B).
- B. Determine the required set-aside for the application category by referring to Column (C). For purposes of this subsection, the number of Affordable Dwelling Units required is determined by multiplying the total number of dwelling units permissible on the site as set forth in Table 27-3 of § 16-27 by the percentage prescribed in Column (C).
- C. Determine the density increase that may be awarded by referring to Column (D). For purposes of this subsection, the additional density that may be awarded is determined by multiplying the total number of dwelling units permissible for the site as set forth in Column (B) (maximum density) of Table 27-3 of § 16-27 by the percentage prescribed in Column (D) of Table 93-1, below. The City shall not require the additional dwelling units to be restricted as to income. The Planning Board shall approve a reduction in the minimum lot size otherwise applicable to the zoning district as needed to permit the densities computed below.
- D. Determine the control period as set forth in Column (E) and subsection (d), below.

Comment: an example of how densities are computed for a inclusinary zoning is as follows –

*Assume that a parcel is 100 acres and located in the R-18 district. This district permits a maximum density of 2.5 dwelling units per acre. The gross acreage is used to compute density. Total permitted dwelling units are 100 (100 gross acres x 2.5 = 250 dwelling units). The applicant proposes to set aside 25 units (10% of the base total) for Owner Moderate Housing. The applicant is entitled to a bonus of 15%, or a total of 288 dwelling units (250 * 1.15), or 38 additional dwelling units.*

(d) Control Period

In order to qualify as Affordable Housing under this Section, the developer must make a binding commitment that such units will remain affordable for not less than the time prescribed in Column (E) of Table 93-1. The control period shall be enforced through a deed restriction, restrictive covenant, or contractual arrangement through a state or federal program or CDHO that ensures that the Affordable Housing will remain affordable for the time period prescribed herein.

(e) Additional Incentives and Standards

(1) Permit Streamlining

If a rezoning is required for the type of dwelling unit requested, the applicant may file a combined site plan and rezoning pursuant to NRO § 16-435.

(2) As of right

A. Transit Moderate Rental, Transit Moderate Owner, Transit Low Rental, or Transit Low Owner housing is permitted by right in any Transit-Oriented Development District.

B. Rehab Moderate Owner, Rehab Moderate Renter, Rehab Low Owner, Rehab Low Rental housing is permitted by right in any area designated as “Inner City” by this Section or the Master Plan.

(3) Compatibility

The dwellings qualifying as Affordable Housing shall be compatible in architectural style and appearance to the dwellings in the proposed development that are not Affordable Housing.

(f) Project Phasing

No density bonus or other incentive shall be approved for a site plan or subdivision plat pursuant to this section unless the applicant consents to a condition that building permits for the dwelling units that are not Affordable Housing (hereinafter “market rate units”) shall be issued as follows:

- (1) Building permits may be issued for the first fifty percent (50%) of the market rate units prior to the construction and offering for sale or rental of any Affordable Housing.
- (2) No building permits may be issued for the next twenty-five percent (25%) of the market rate units (i.e., from 51% up to 75% of the approved market rate units) prior to the construction and offering for sale or rental of at least twenty-five percent (25%) of the approved Affordable housing.
- (3) No building permits may be issued for the next fifteen percent (15%) of the market rate units (i.e., from 76% up to 90% of the approved market rate units) prior to the construction and offering for sale or rental of at least seventy-five percent (75%) of the approved Affordable housing.
- (4) No building permits may be issued for the remainder of the market rate units (i.e., from 91% to 100% of the approved market rate units) prior to the construction

and offering for sale or rental of 100% percent (100%) of the approved Affordable Housing.

(g) Administration

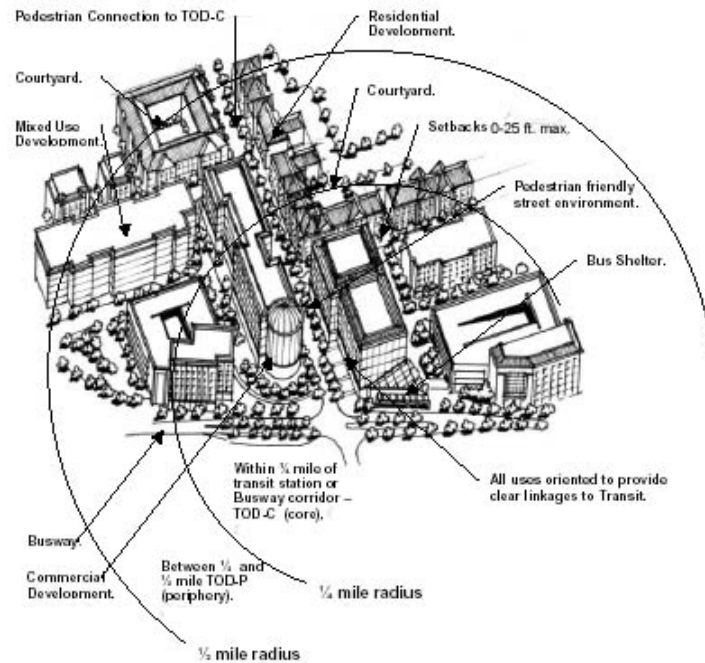
- (1) This Section may be administered by the Community Development Department of the City of Nashua (“CDD”). The CDD or a Community Housing Development Organization (CHDO) shall have an exclusive right to purchase any units offered for sale to Target Households but not purchased or rented within a time period mutually agreed upon between the Applicant and CDD or a CHDO.
- (2) Affordable Housing sales prices throughout the City shall be established by CDD initially and shall be adjusted semiannually, based on a determination of all ordinary, necessary and reasonable costs required to construct the Affordable Housing prototype dwellings by private industry, and other information such as the area's current general market and economic conditions, provided that sales prices not include the cost of land, on-site sales commissions and marketing expenses, but may include, among other costs, builder-paid permanent mortgage placement costs and buy-down fees and closing costs except prepaid expenses required at closing settlement.
- (3) Affordable Housing rental prices shall be established by CDD initially and shall be adjusted semiannually, based on a determination of all ordinary, necessary and reasonable costs required to construct and market the required number of affordable dwelling rental units by private industry in the area, and other information such as the area’s current general market and economic conditions.

Table 93-1 Density Bonus for Inclusionary Zoning

(A)	(B)	(C)	(D)	(E)
Category	Definition	Set-aside	Density bonus	Control Period
Rental Moderate Housing	Rental housing affordable to moderate income households	15%	15%	30 years
Owner Moderate Housing	Owner-occupied housing affordable to moderate income households	10%	15%	30 years
Rental Low Housing	Rental housing affordable to low income households	20%	20%	30 years
Owner Low Housing	Owner-occupied housing affordable to low income households	5%	20%	30 years
Transit Moderate Rental	Rental Moderate Housing located in a Transit-Oriented Development (TOD) District	15%	30%	20 years
Transit Moderate Owner	Owner Moderate Housing located in a TOD District	10%	25%	20 years
Transit Low Rental	Rental Low Housing located in a TOD District	20%	30%	20 years
Transit Low Owner	Owner Low Housing located in a TOD District	3%	15%	20 years
Rehab Moderate Owner	Owner-occupied housing located in vacant and or substandard inner city residential buildings that are affordable to moderate income households	5%	20%	20 years
Rehab Moderate Renter	Rental housing located in vacant and or substandard inner city residential buildings that are affordable to moderate income households	10%	20%	20 years
Rehab Low Owner	Owner-occupied housing located in vacant and or substandard inner city residential buildings that are affordable to low income households	2%	20%	20 years
Rehab Low Rental	Rental housing located in vacant and or substandard inner city residential buildings that are affordable to low income households	15%	25%	20 years

DRAFT – 6-24-03

16-46 Transit-Oriented Development (“TOD”)



The Transit-Oriented Development District encourages a mixture of residential, commercial, and employment opportunities within identified commuter rail station areas or other high capacity transit areas. This Section promotes transit supportive development, ensure access to transit, and to limit conflicts between vehicles and pedestrians and transit operations and allows for a more intense and efficient use of land at increased densities for the mutual re-enforcement of public investments and private development. Uses and development are regulated to create a more intense built-up environment, oriented to pedestrians, to provide a density and intensity that is transit supportive. The development standards encourage a safe and pleasant pedestrian environment near transit stations by encouraging an intensive area of shops and activities, by encouraging amenities such as benches, kiosks, and outdoor cafes, and by limiting conflicts between vehicles and pedestrians. A TOD is restricted to areas within one-half (1/2) of a mile of a transit station, which area is equivalent to a 10-minute walking distance.

This section implements the following Master Plan recommendations:

- *Enhance existing commercial areas with improved landscaping, aesthetics, signage, nighttime light pollution, architectural design, traffic flow and coordination with abutting land uses whenever the opportunity presents itself.*
- *Encourage increasing residential and employment densities as in-fill in established neighborhoods to increase transit ridership, particularly in downtown areas with access to the forthcoming Broad Street Parkway.*

(a) Applicability

The provisions of this section apply to any Use or Development located within a Transit-Oriented Development (“TOD”) District.

(b) Processing Procedures

Development consistent with the regulations established herein may occur as of right in any Transit Oriented Development District, subject to the locational restrictions of subsection (d), below.

(c) Size and Location of Site

The TOD shall be divided into two subareas known as the “TOD Core” (“TOD -C”) and the “TOD Periphery” (TOD -P), which are subject to the requirements set forth in this Section. The requirements of this section shall apply to both the TOD -C and TOD -P subareas, unless otherwise provided.

(d) Locational Criteria

(1) All areas within one-quarter ($\frac{1}{4}$) of a mile of a Transit Station or Major Bus Boarding Location shall be classified as “TOD -C.”

(2) All areas between one-quarter ($\frac{1}{4}$) of a mile and one-half ($\frac{1}{2}$) of a mile from a Transit Station or a Major Bus Boarding Location shall be classified as “TOD -P.” No land area shall be considered to be within a “TOD -P” unless it adjoins an area zoned “TOD -C.” The Board of Aldermen may expand this area where it finds that the additional land area will support transit usage because of the nature of existing or proposed development, street system, public transportation to the Transit Station, or other relevant factors.

(e) Uses and Density

Purpose and Findings: Because most transit users will walk only one-quarter to one-half of a mile to a transit facility, transit influence areas require high densities on small areas of land. The City therefore finds and determines that uses inconsistent with transit will undermine the most efficient use of limited land areas within a TOD, and may render the transit system unworkable. Accordingly, the uses permitted within the TOD -C and TOD -P subdistricts are those which are dependent upon, or which may generate, a relatively high level of transit usage. Uses that would interfere with transit usage and which generate few transit trips are not permitted. Further, the City finds and determines that minimum levels of density as set forth in Table 46-1 are required to support transit ridership, and that lower levels of density will not support transit ridership and will create unacceptable levels of vehicular congestion.

- (1) Any uses permitted in the “R-C” or “D” zoning districts is permitted in the “TOD” district. (Use Matrix, [§ 16-26](#), Table 26-1 of this Chapter).
- (2) The requested densities, in terms of number of units per gross residential acre and total number of dwelling units shall be set forth in the application for rezoning or site plan approval. The Application shall comply with Table 46-1, below. The applicable land use categories are set forth in Column (A). The density for the

particular use shall be at least the amount set forth in Column (B) for residential uses, and shall not exceed the amount shown in Column (C). The floor area ratio (FAR) for the particular use shall be at least the amount set forth in Column (D) and shall not exceed the amount shown in Column (E).

Table 46-1 Dimensional Standards, "TOD" District

(A)	(B)	(C)	(D)	(E)
Location/Size	Minimum Density	Maximum Density	Minimum FAR	Maximum FAR
TOD-C				
Less than 2 acres	16	40	2.5	6.0
2 acres or more	12	36	2.0	4.0
TOD-P				
Less than 2 acres	12	36	1.5	4.0
2 acres or more	8	32	1.0	2.0

(f) Adequate Public Facilities

The Adequate Public Facilities Standards, [Article V, Division 3](#) of this Chapter, shall not apply to any application for site plan approval within a TOD.

(g) Lot Arrangement and Dimensions

The front setback shall be established as follows:

- (1) Minimum front setback: 0 feet from the edge of the sidewalk. A minimum setback of five (5) feet from the property line shall be required where street tree planting is required pursuant to Article V, Division 7 of this Chapter.
- (2) Maximum front setback: 15 feet.

(h) Street Design and Transportation

For a proposed TOD which involves a subdivision, the street design standards shall conform to [Article V, Division 10](#) of this Chapter. Any proposed TOD shall conform to the following:

(1) Generally

All buildings and sites shall orient their interior and on-site circulation to the closest adjacent Transit Station or Bus Shelter.

(2) Pedestrian Access

New retail, office and institutional buildings within the TOD-C District shall provide for convenient pedestrian access to transit through the measures listed below:

- A. Pedestrian connections to adjoining properties shall be provided except where such a connection is impracticable due to unique topography.
- B. Pedestrian connections shall connect the on-site circulation system to existing or proposed streets, walkways, and driveways that abut the property. Where adjacent properties are undeveloped, streets, accessways and walkways on site shall be aligned or stubbed to allow for extension to the adjoining property.
- C. A direct pedestrian connection shall be provided between the transit stop and building entrances on the site.
- D. A transit passenger landing pad accessible to disabled persons shall be provided.

(i) Open Space and Parks

The Open Space and Parks Standards shall not apply to Development within a Transit-Oriented Development District.

(j) Landscaping

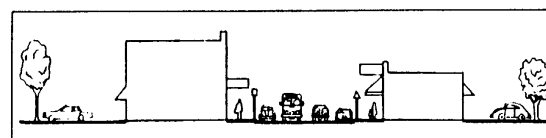
See [Article V, Division 7](#) (Landscaping).

(k) Parking

The minimum parking requirements shall within the TOD-C and TOD-P districts are as follows:

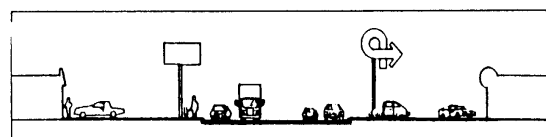
Area	Minimum Parking Requirement
TOD-C, within 500 feet of a commuter rail alignment	None
TOD-C, balance of area	Fifty percent (50%) of the parking spaces required by the Parking Standards of this Chapter.
TOD-C, balance of area	75 percent of the parking spaces required by the Parking Standards of this Chapter

- (1) The maximum number of parking spaces shall not exceed the amount set forth in the Parking Standards ([Article V, Division 8](#)) of this Chapter.



Transit related development

- (2) Existing development shall be allowed to redevelop up to seventy-five percent (75%) of existing parking areas for transit oriented uses, including bus stops and pullouts, bus shelters, park and ride



Buildings within a TOD district feature small front setbacks in order to provide efficient pedestrian movement
(Source: USDOT, A Guide to Land Use and Public Transportation (Dec. 1989))

stations, transit oriented developments, and similar facilities, where appropriate.

- (3) All other provisions of the Parking Standards shall apply to a Transit-Oriented Development.

(I) Building Design

All new buildings shall comply with the building design standards for the “D-1” (Downtown) District ([§16-31\(b\)](#))

APPENDIX G: Sample Language for Building Siting Standards

Commercial Uses

- Minimum front setback of 5', and maximum of 15', exclusive of setback entries or courtyards less than 30% of lot frontage;
- Principal entrances to buildings must face major streets;
- Off-street parking must not lie between the building's principal entrance and the street;
- Between 60% and 90% of the length, and at least 50% of the surface of the first floor frontage shall be transparent public entrances or windows;
- A building shall not exceed the height of a neighboring building by more than one standard floor, and shall match floor levels, roof lines and cornices within 15% of those on adjacent structures;
- Drive-through uses are prohibited- Window bays and vertical elements on the façade that respond to the structural system of the building are encouraged to add visual interest;
- Loading areas must be carefully concealed in the rear of the building, visually screened with fencing or concealed by building architecture.

Residential Uses

- Minimum front setback of 10', and maximum of 20', except on Local Roads as defined by the *Streetscape and Open Space Standards for the East Hollis Street Area* (included in this document), where the setback can be up to 25';
- Principal entrances to homes must face major streets;
- Off-street parking must not lie between the building's principal entrance and the street; and,
- A building shall not exceed the height of a neighboring building by more than one standard floor, and shall match floor levels,



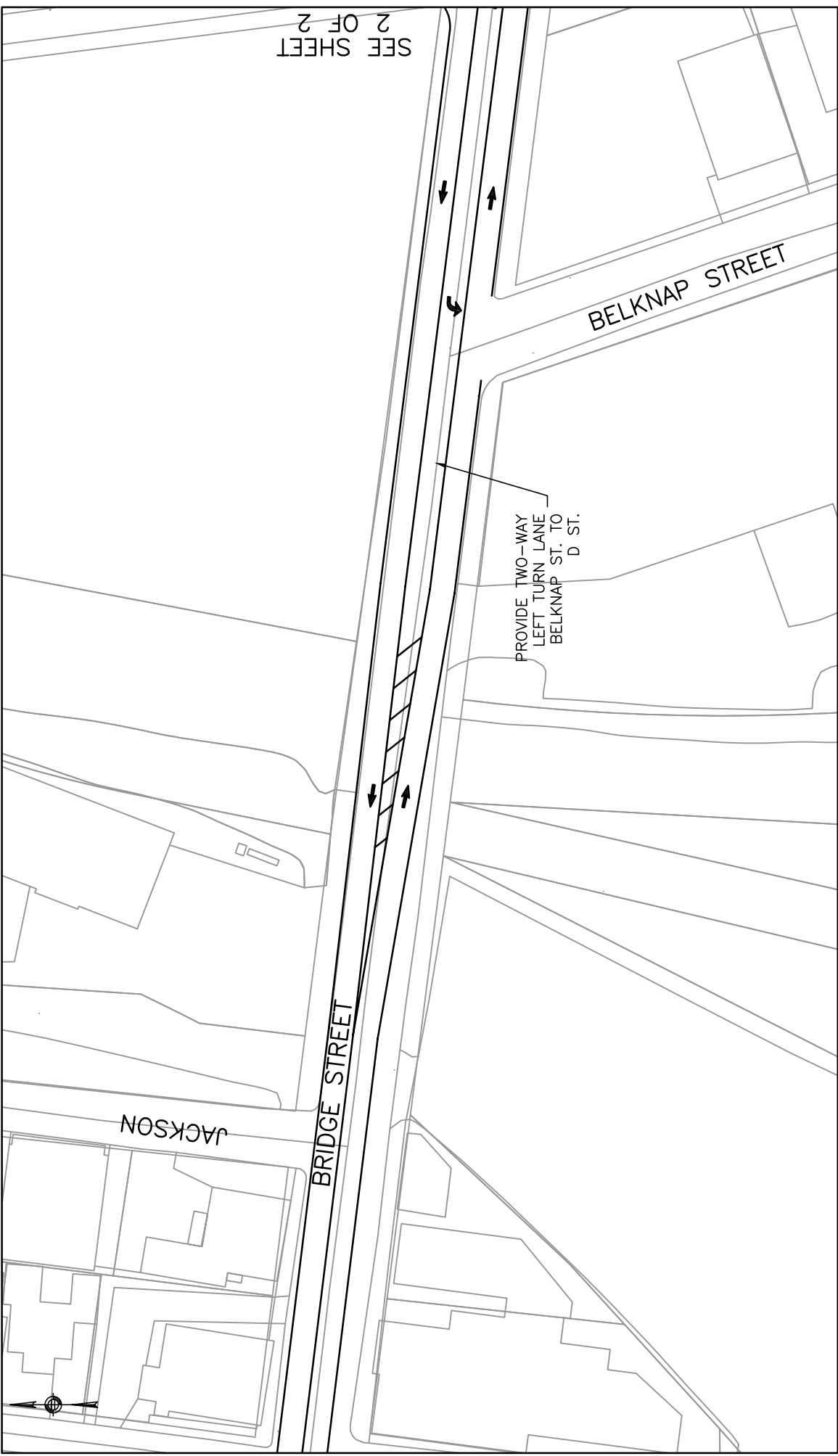
roof lines and cornices within 15% of those on adjacent structures.

Mixed Uses

- Commercial/retail space should occupy the ground level, with multi-family residential above.

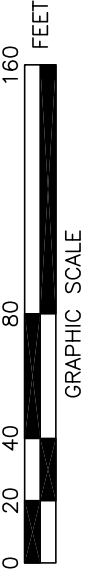
APPENDIX H: Short-term Intersection Improvements





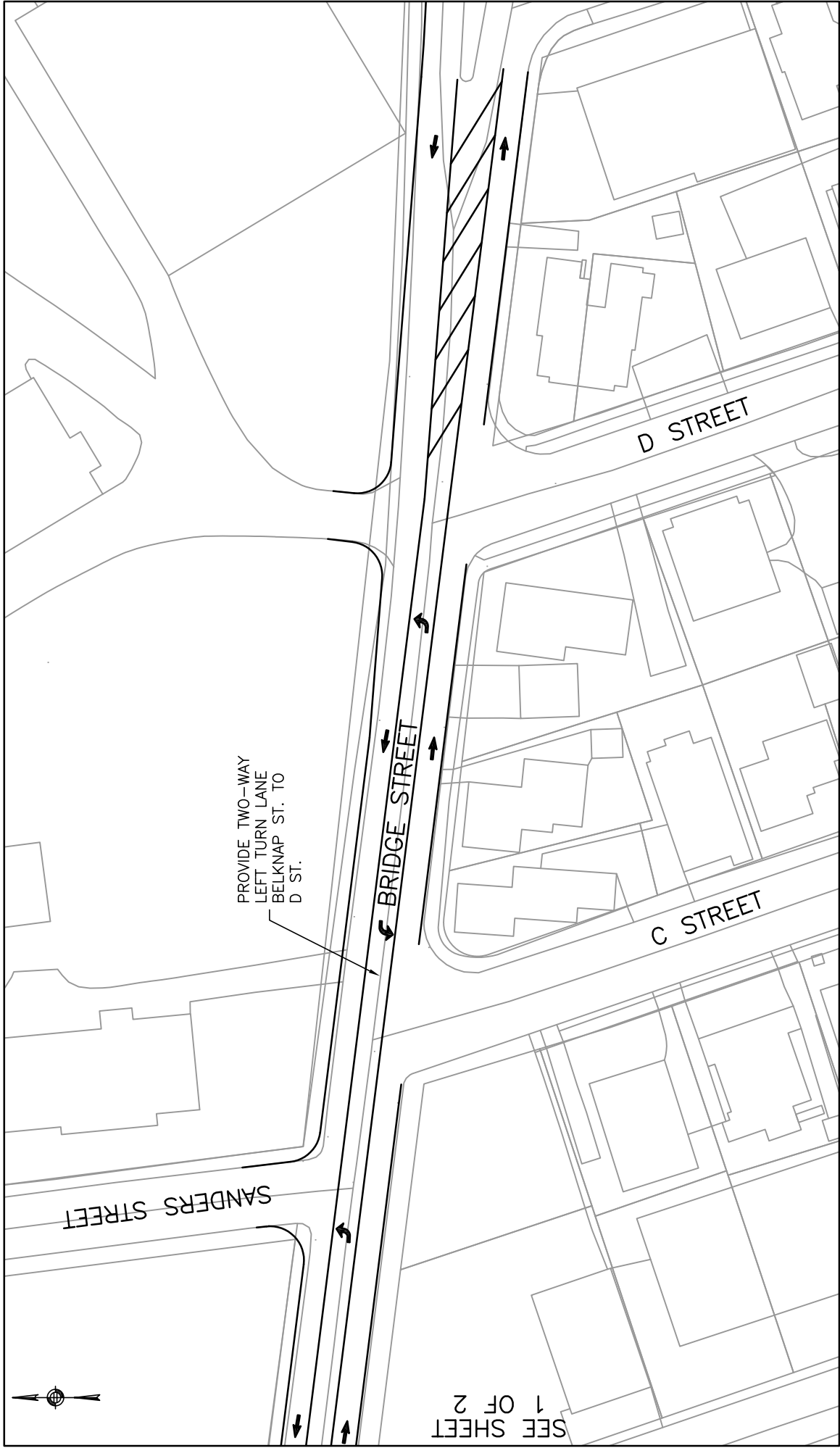
BRIDGE STREET - BELKNAP STREET TO D STREET
 SHEET 1 OF 2 - SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003
 Prepared by: Howard/Stein-Hudson Associates



EAST HOLLIS STREET AREA PLAN





SEE SHEET
1 OF 2

PROVIDE TWO-WAY
LEFT TURN LANE
BELKNAP ST. TO
D ST.

SANDERS STREET

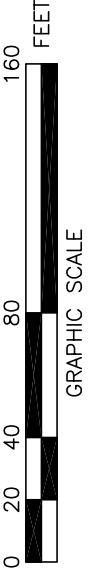
BRIDGE STREET

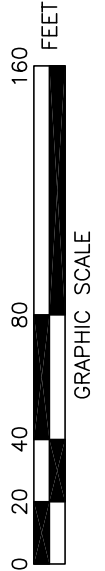
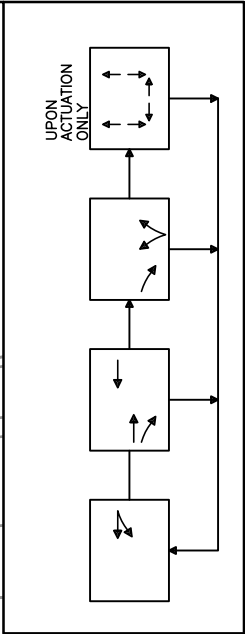
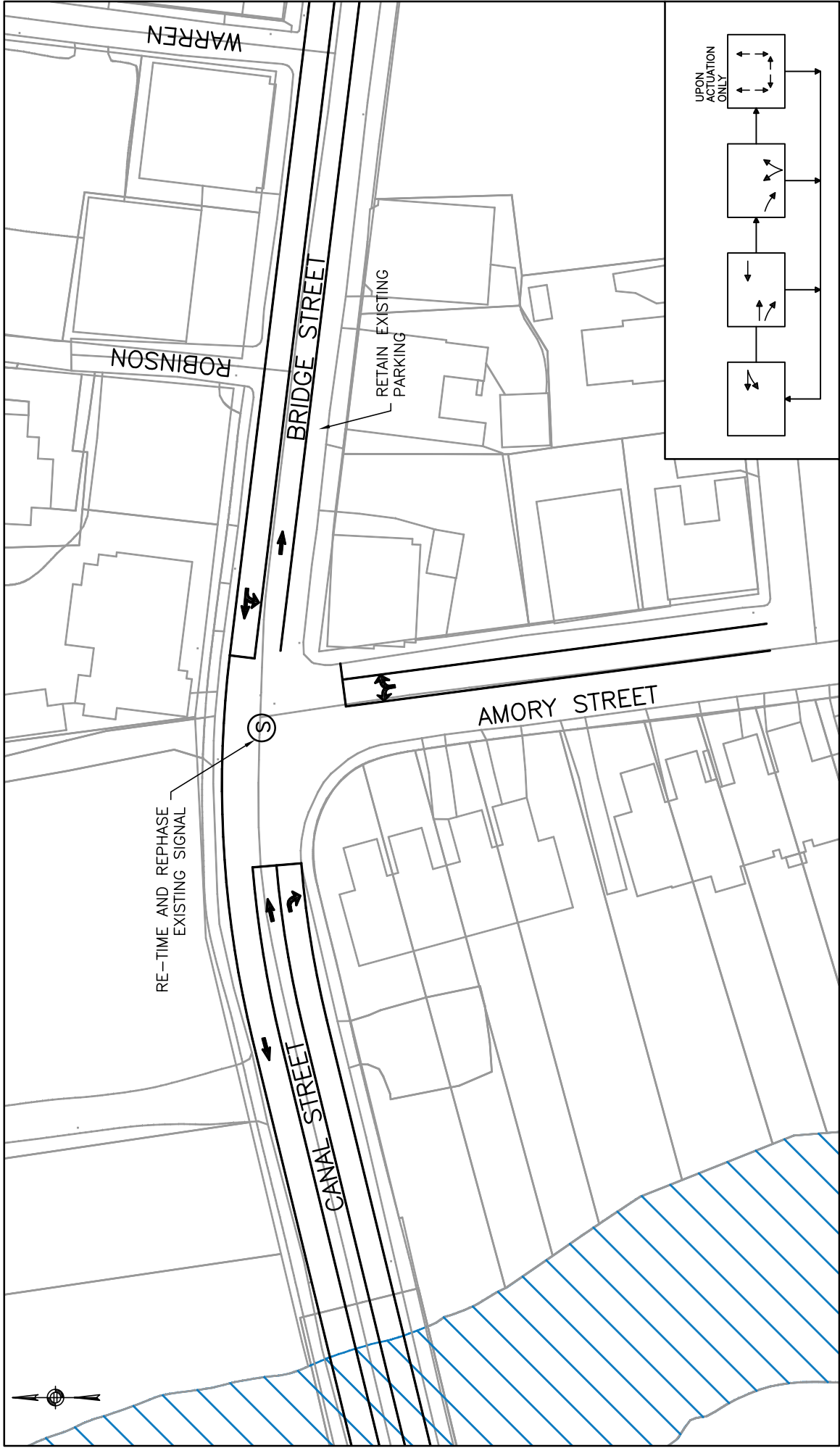
C STREET

D STREET

BRIDGE STREET - BELKNAP STREET TO D STREET
SHEET 2 OF 2 - SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003
Prepared by: Howard/Stein-Hudson Associates

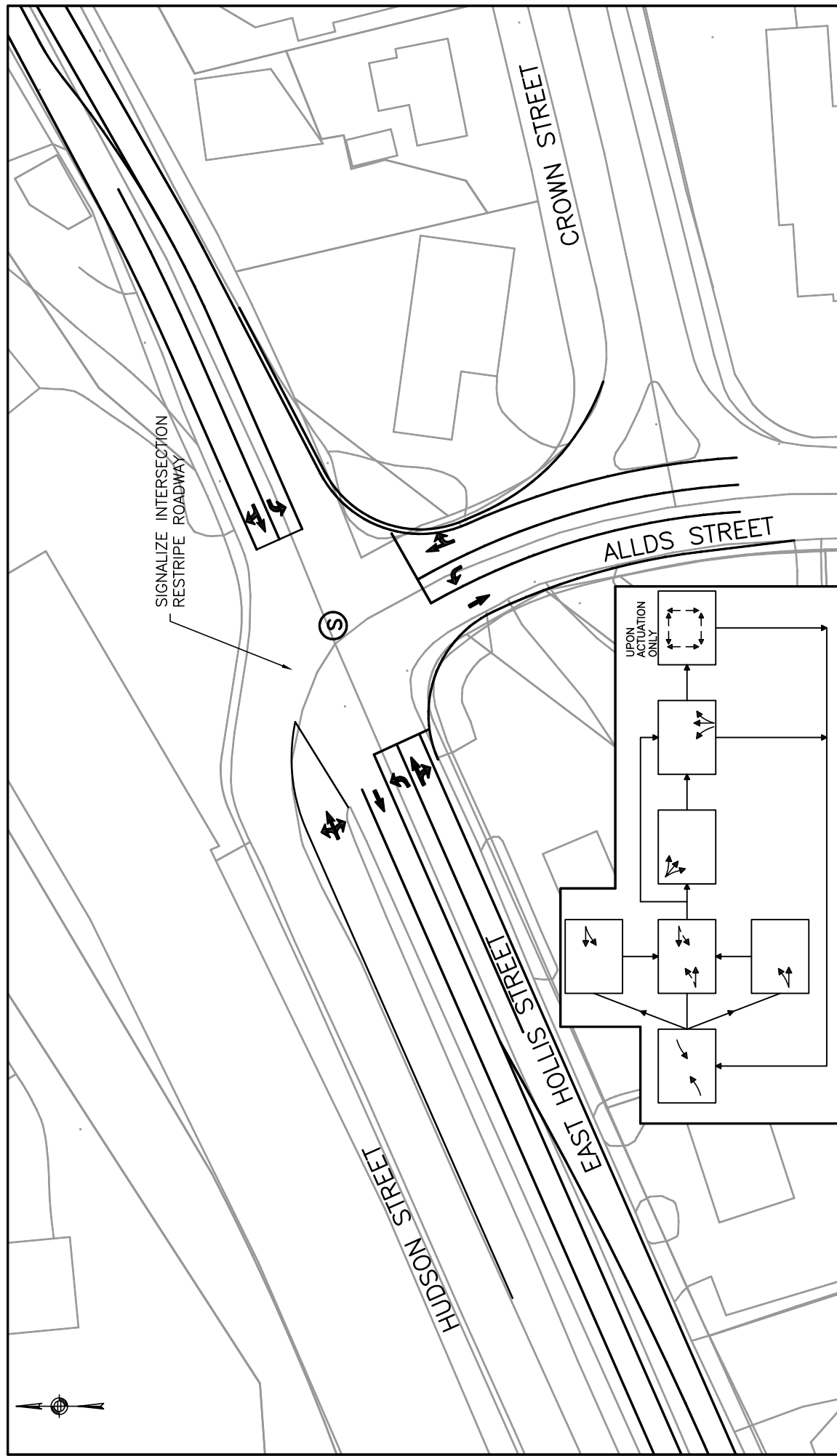


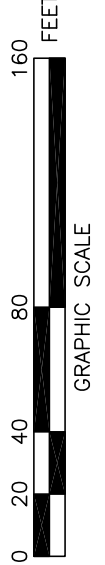
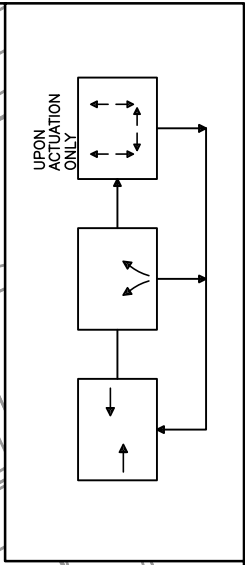
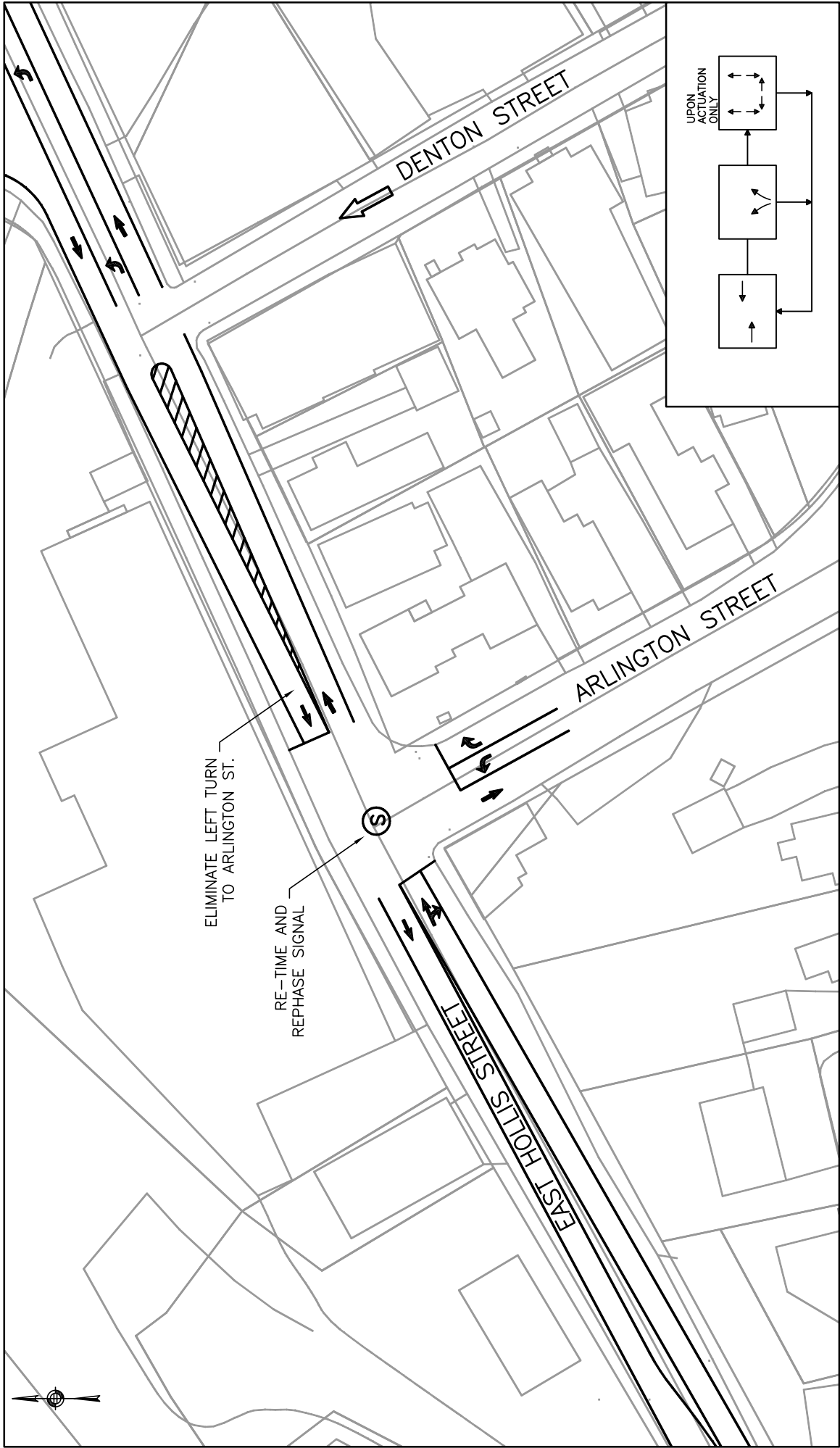


CANAL STREET/BRIDGE STREET/AMORY STREET
SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003
Prepared by: Howard/Stein-Hudson Associates



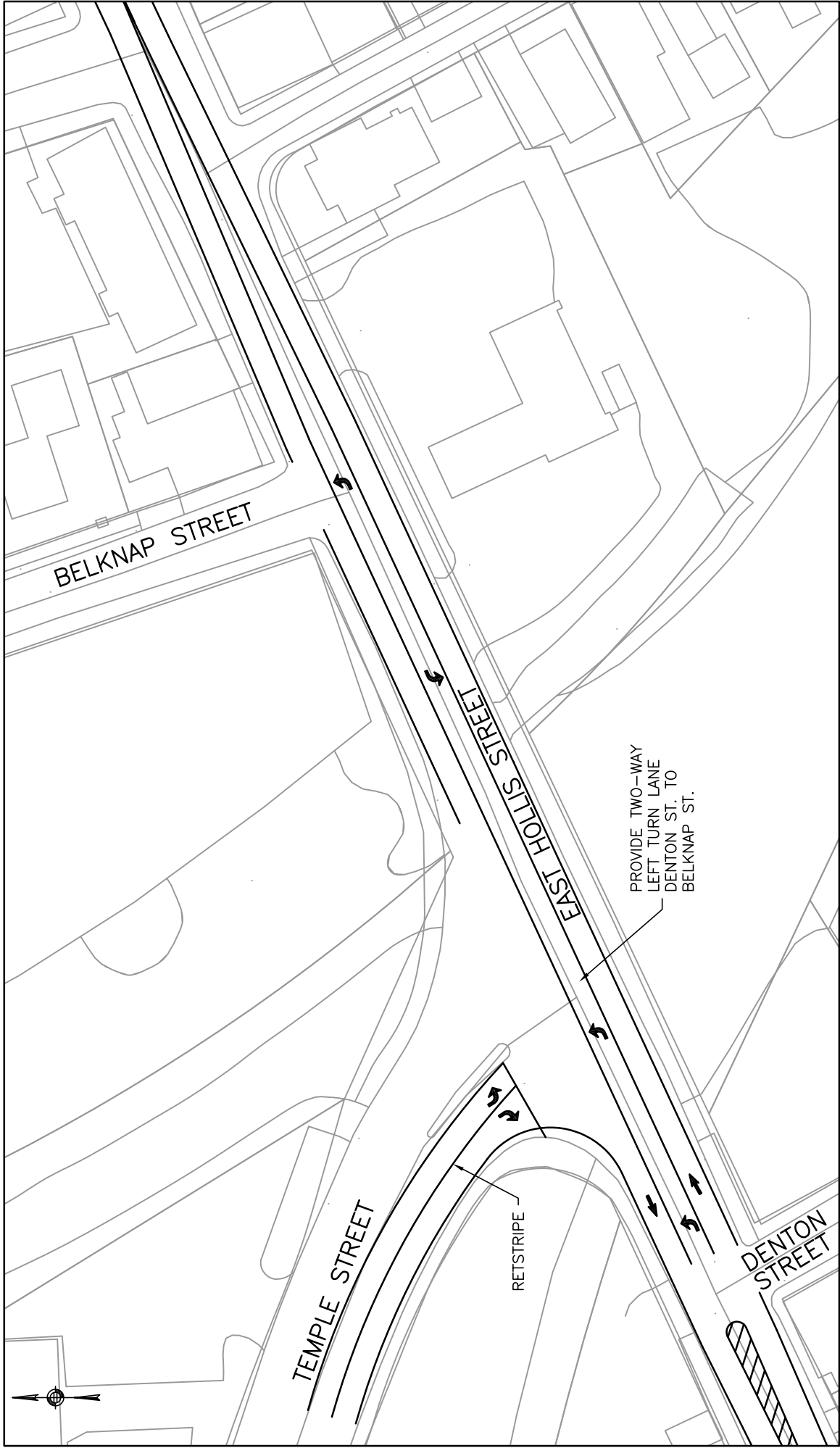




EAST HOLLIS STREET/ARLINGTON STREET SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003
Prepared by: Howard/Stein-Hudson Associates

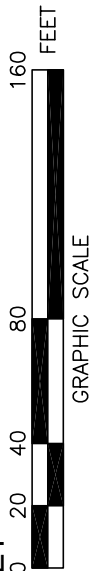


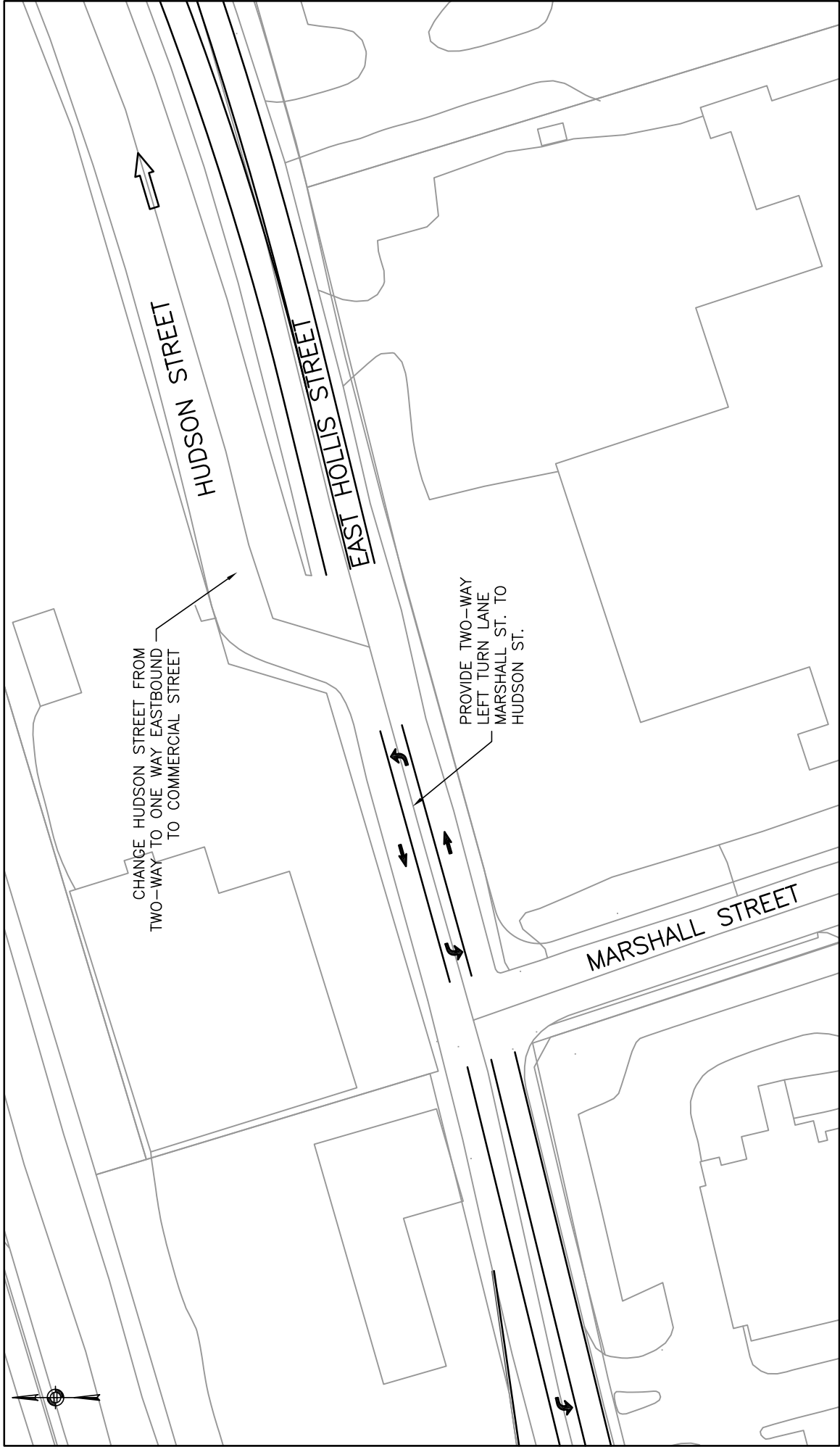


EAST HOLLIS STREET - DENTON STREET TO BELKNAP STREET SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003
Prepared by: Howard/Stein-Hudson Associates

EAST HOLLIS STREET AREA PLAN





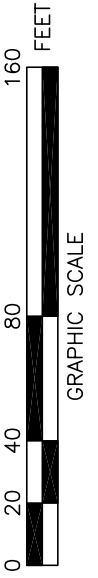
EAST HOLLIS STREET- MARSHALL STREET TO HUDSON STREET

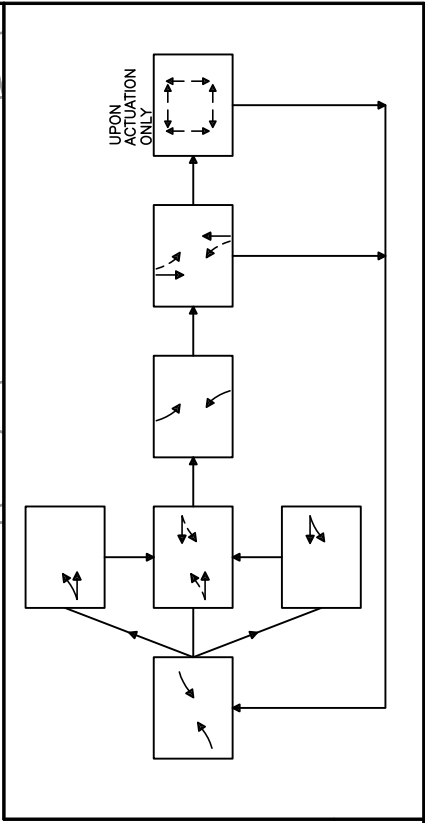
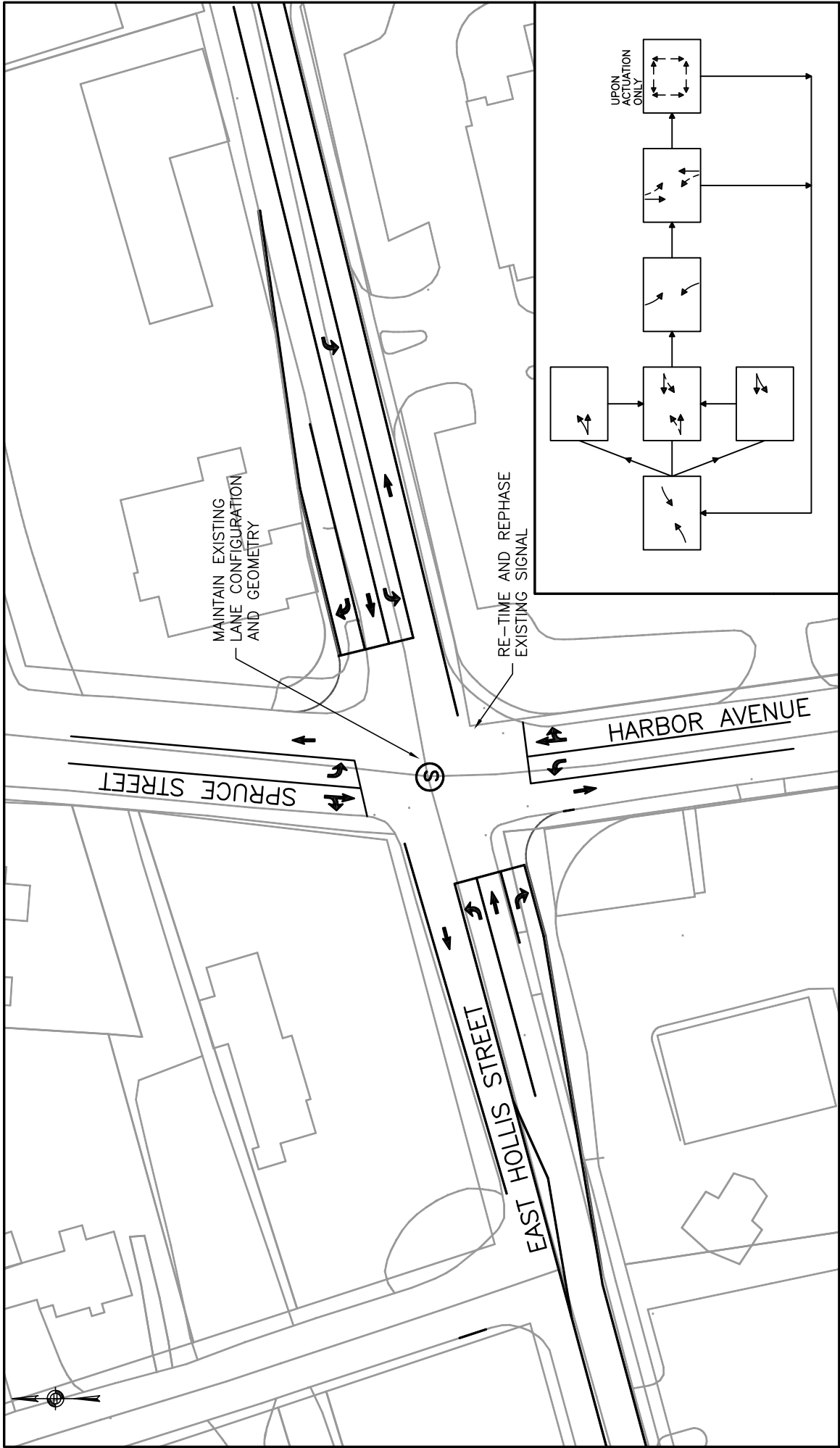
SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003

Prepared by: Howard/Stein-Hudson Associates

EAST HOLLIS STREET AREA PLAN

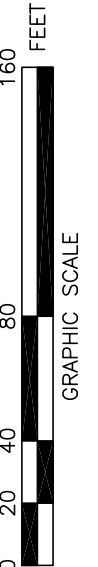




EAST HOLLIS STREET/HARBOR AVENUE/SPRUCE STREET

SHORT TERM IMPROVEMENTS

SEPTEMBER, 2003
 Prepared by: Howard/Stein-Hudson Associates



APPENDIX I: Vision for Tomorrow



Vision for Tomorrow

THE PLAN

This *Plan* also addresses the long-term future of this area. While the Vision for Today sets the framework for natural transition and short-term implementation, it mainly addresses the edges of the study area. The core of the area – the area between Bridge and East Hollis, Amory and Belknap streets – is currently home to warehousing and construction materials businesses. With the anticipated arrival of commuter rail service (and eventually high-speed rail), and given the district's highly visible location near the waterfront and between two regional arterials, the core area may not be an advantageous location for those businesses in the longer term. The Nashua community needs to understand what a desired future for that area might look like, so that in the interim, as change takes place in the district, the City leaders will have a vision to work towards. It is imperative that the City revisit plans for this area in five to seven years; to reexamine transportation conditions, the proposed station location and land use, in light of future conditions.

The purpose of this *Visions for Tomorrow* section is to document ideas and opportunities for the Core area, for consideration in future studies, that could contribute to a more livable East Hollis Street area.

KEY OPPORTUNITIES

The key opportunities are represented in Figure T3, and include:

1 Create additional through capacity on Bridge and East Hollis streets

Because the majority of traffic is traveling through the East Hollis Street area, not to it, through capacity is especially important for addressing traffic congestion. (Through capacity is the total number of vehicles that can travel a road in a peak hour condition, and is calculated based on the number of through lanes.) The existing paved area of Bridge and East Hollis streets is generally wide enough to accommodate three travel lanes. A third through lane on these two arterials could increase capacity up to 50%; however, based on narrower lanes and reduced shoulder widths, a more realistic increase would be about 35%. A third lane introduced on Bridge Street would

Figure 1 - Bridge Street (shown here) and East Hollis Street (not shown) each generally have sufficient right-of-way for a third travel lane.



Historic aerial view: East Hollis at Spruce Street intersection at upper right. City coal shed is at upper center.

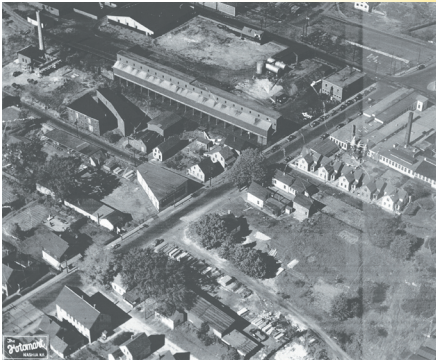
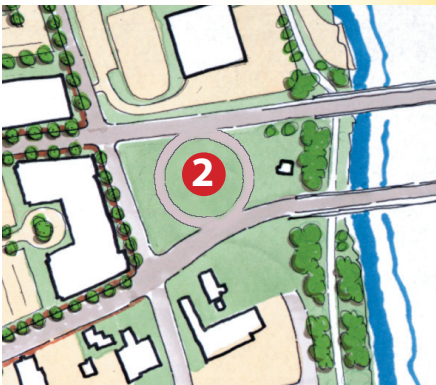


Figure 2 - The roundabout facilitates turning movements at the end of the Taylor Falls Bridge and reduces the amount of land devoted to roadways.



carry traffic westbound, away from the Taylor Falls Bridge, and a third lane introduced on East Hollis would carry traffic eastbound, towards the bridge. The additional capacity on each of these arterials will redirect traffic flows in the district, attracting the majority of eastbound traffic to East Hollis Street, and the majority of westbound traffic to Bridge Street. The third lane will displace on-street parking, but that may only be necessary during peak hour if the choice is made to manage curbside parking on those corridors. Additional modeling of this alternative should be undertaken to address capacity and safety issues, and understand any potential impacts to Main Street intersections. Impacts to Main Street traffic may be offset by the addition of a new north-south connector within the *Plan* area.

2 Use a roundabout for directional changes at the Taylor Falls Bridge

Replacing the “X” intersection at the west end of the bridge over the Merrimack can be a significant step towards creating a gateway and managing congestion along Bridge/East Hollis streets. A successful roundabout in this location would be dependent on:

- The addition of a through lane westbound on Bridge Street, and a through lane eastbound on East Hollis Street; and,
- That the trip diversion reduces the crossing traffic accessing the Taylor Falls Bridge.

Roundabouts allow for a continual – although slow-speed – flow of traffic, moving more cars through an intersection in a “cycle” than a standard intersection. The center island of the roundabout presents an opportunity for a significant landscape feature at the terminus of the view of drivers crossing the river to Nashua – a visual gateway. A second gateway element is a development parcel that can be fashioned east of E Street, where a new building could be sited there, to create a landmark while buffering the modestly-scaled residential conversions west of E Street.

3 Create a north-south connector from Bridge Street to East Hollis Street

A new road can replace or even improve the existing Temple Street’s configuration and operation, and offer a range of transportation benefits. For example, the north-south connection offers an alternative route across the Nashua River beside Main Street’s overtaxed bridge, to allow for regional distribution west of the Taylor Falls Bridge, and in light of the proposal to focus eastbound flows on East Hollis and westbound flows on Bridge Street. It may also be designed to draw more traffic off the parallel Amory Street, restoring



Recommendations

- 1** Create additional through capacity on Bridge and East Hollis streets by striping a third lane
- 2** Use a roundabout for directional changes at the Taylor Falls Bridge
- 3** Create a north-south connector from Bridge Street to East Hollis Street
- 4** Extend Temple Street as a green boulevard connection to Main Street
- 5** Improve Commercial Street
- 6** Create a roadway to join the dead-end streets of Jackson Square
- 7** Locate the rail station into the "Core" area
- 8** Identify an opportunity to create a central greenspace in the East Hollis Street area
- 9** Extend residential uses east of Commercial Street and along the Nashua River.
- 10** Focus commercial development along the Bridge/ East Hollis corridors
- 11** Expand industrial uses along the Merrimack waterfront south of Crown Street



VISION FOR TOMORROW

some of Amory's residential character. The connector may be aligned with Denton Street to create direct access into the proposed Crown Street train station site. As a new road, sufficient right-of-way may be acquired to create a green boulevard through the heart of the East Hollis Street area, linked to the proposed walkways/bikeways along abandoned rails, and possibly new open space, as well.

4 *Extend Temple Street as a green boulevard connection to Main Street*

Given the large traffic volumes and formidable right-of-way constraints on Bridge and East Hollis streets, it may be prohibitively expensive to create the wide sidewalks and planting areas necessary for those corridors to be attractive to pedestrians. An alternative strategy is to focus quality pedestrian environments on the Temple Street corridor, in combination with the rail corridor walkways/bikeways. Temple Street west of the *Plan* area is already very attractive and substantial public investment has occurred there, and because the extension of Temple would require right-of-way acquisition, there is opportunity to create a green boulevard into the heart of the *Plan* area.

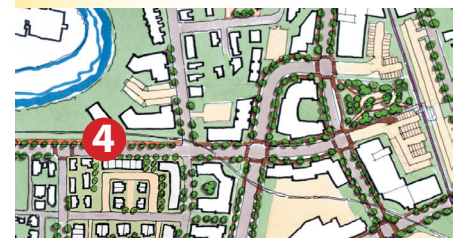
5 *Improve Commercial Street*

Commercial and Hudson are below-grade streets that connect to East Hollis, but were not originally planned as streets. The historic granite retaining walls were foundation walls for a foundry there. Although an interesting road configuration, the below-grade streets function as a barrier to the surrounding area. Parcels that front on East Hollis at Commercial have limited access due to the grade changes, and contributing to their long-term, under utilization. The east edge of the Acre residential neighborhood has no connection to Commercial Street, which largely functions as a wall there and fosters an atmosphere of disconnection. The Jersey barriers along the Hudson/East Hollis streets edge are visually unattractive, making the corridor appear like a construction site. In the near-term, the Public Works Division intends to remove the jersey barriers and replace them with a guardrail, which will be an improvement. In the longer-term, the consequences of raising Commercial Street and Hudson Street to grade should be studied. There are possible impacts to building access for three private properties – two residential and one warehouse/industrial – but there may be reasonable alternatives for those properties, and the benefits in terms of increased value in the area would significantly offset the disadvantages.

Figure 3 - North/south connector between Bridge and East Hollis streets.



Figure 4 - Temple Street extended as a green boulevard.



The remaining historic granite retaining walls at Commercial and Hudson streets were originally foundations for a foundry there.

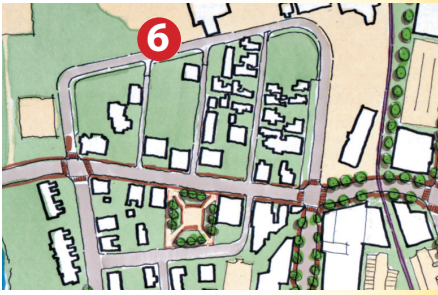


Figure 5 - There may be an opportunity over time to create a street grid in Jackson Square and connect the area to the wider district.

Figure 6 - There is an opportunity to locate a rail station and a central green space in the "Core" area in the future.



6 Create a roadway to join the dead-end streets of Jackson Square

Robinson, Warren, Van Buren, and Jackson streets in the Jackson Square neighborhood suffer from poor access and insufficient parking resulting from their narrow dead-end streets. Further study and discussion with area landowners should be undertaken to see if a roadway to connect these dead-ends and provide new outlets from the blocks is possible. One concept is to connect those roads with Amory or the proposed north-south connector, and connect the neighborhood into the wider district networks.

7 Locate the rail station into the "Core" area

The Steering Committee acknowledged that the "Core" station site provides many benefits, and recommended that the concept be considered for future study, pending the advancement of station area planning. The center of the district is an optimal location for the proposed rail station for several reasons:

- It locates the station in the midst of large parcels that could redevelop at transit-oriented densities, as opposed to the location south of Crown Street where the area of influence is largely Crown Hill residential properties and small parcels that are more difficult to redevelop.
- It optimizes station access by locating the station between the Bridge and East Hollis Street arterials, where visitors to the area could find it. The access and visibility are advantageous for public safety, as well.
- It places the rail station at the termini of a possible "green network" – the rail corridor walkways/bikeways and the Temple Street extension as a green boulevard.
- It locates the station near its historic site - the site of Nashua's Union Station.

However, there are significant infrastructure investments required to locate the station between Bridge and East Hollis. A short segment of Bridge Street must be realigned to allow 800' platforms (required by the MBTA), and the rail must be relocated to create a straight segment appropriate for safe interface with station platforms. These significant infrastructure investments would be offset by the new, transit-oriented development potential.

8 Identify an opportunity to create a central green space in the East Hollis Street area

This district needs a central gathering space and a crossroads for green corridors (Temple Street, rail trails) in the Core. If there



is a transition in land use in the future, the City should consider acquiring space for a public square.

9 *Extend residential uses east of Commercial Street and along the Nashua River.*

Another design technique to reconnect this area to the Main Street/ Downtown is to create a consistent quality of environment in between. By extending residential uses – transit-oriented to be forward-looking – from the west further into the core of the East Hollis Street Area, this connection is achieved.

10 *Focus commercial/retail development along the Bridge/East Hollis corridors*

Any district can only support a certain amount of commercial and retail space. That space should be focused in certain locations rather than dispersed, to create a continuous identity and allow for walking connections between properties. Smaller, neighborhood-oriented businesses such as dry cleaners or mom-and-pop establishment can help define city blocks. Existing commercial and retail properties on East Hollis and Bridge streets should be reinforced with new, similar uses.

11 *Expand industrial uses along the Merrimack waterfront south of Crown Street*

There is ample space to extend the industrial node along the waterfront south of the Taylor Falls Bridge, an area with strong potential for rail access. This area could be used as a new location for existing uses in the core of the district, freeing up the core for redevelopment. A public open space corridor should still be preserved along the waterfront.

Any and all of these elements would require significant further study to implement, if in the future they are found to still address the issues and needs of the East Hollis Street Area.

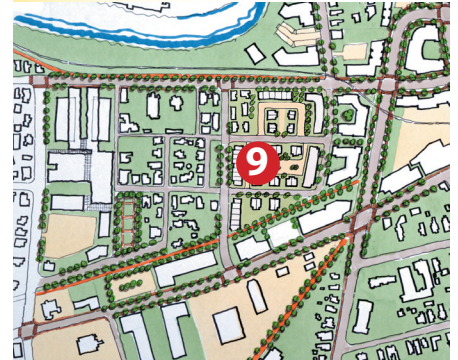
Other concepts discussed

A range of other ideas raised in this planning process merit recording because in a future context they may offer potential advantages:

1) Bridge Alternative

A roadway/bridge connection from Amory Street across the Nashua to Lock Street might offer an efficient connection to origins/

Figure 7 - Residential uses extended east of Commercial Street.



There is ample space to extend the industrial area along the waterfront south of the Taylor Falls Bridge, into an area with strong potential for rail access

destinations north of the study area, and in the future would bring French Hill residences within walking distance of the proposed rail station. However, given the environmental permitting challenges of a new river crossing, and the limitations of the existing transportation infrastructure, that concept was set aside.

2) Roadway Overpass

Overpasses over the railroad tracks in the study area would allow traffic to continue unimpeded when a train passed through the district. However, these structures are expensive to build, and would introduce significant visual and physical barriers into a district, when the goal is to eliminate such barriers. This concept was set aside.

3) Depressing Rail Tracks

A rail alignment and station along the banks of the Merrimack River was investigated. The concept would relocate the tracks east, and below-grade of the Taylor Falls Bridge. A study of this concept indicated that the engineering required was somewhat complicated, and introduced adverse impacts to a potential waterfront access (refer to Appendix X-3 for more information). This concept was set aside.

Alternatives 2 and 3 would reduce or eliminate the frequency of at-grade rail crossings, which are a safety concern and contribute to traffic congestion in the district.



Figure 8 - With a roundabout at the west end of the Taylor Falls Bridge, a signature building could become part of Nashua's Gateway.



PLAN ALTERNATIVES

The following plan alternatives were reviewed by the Steering Committee. These proposals involve more substantial infrastructure investment and/or land use change; and provide various benefits for traffic and non vehicular transportation and transit oriented development. They are documented for future consideration.

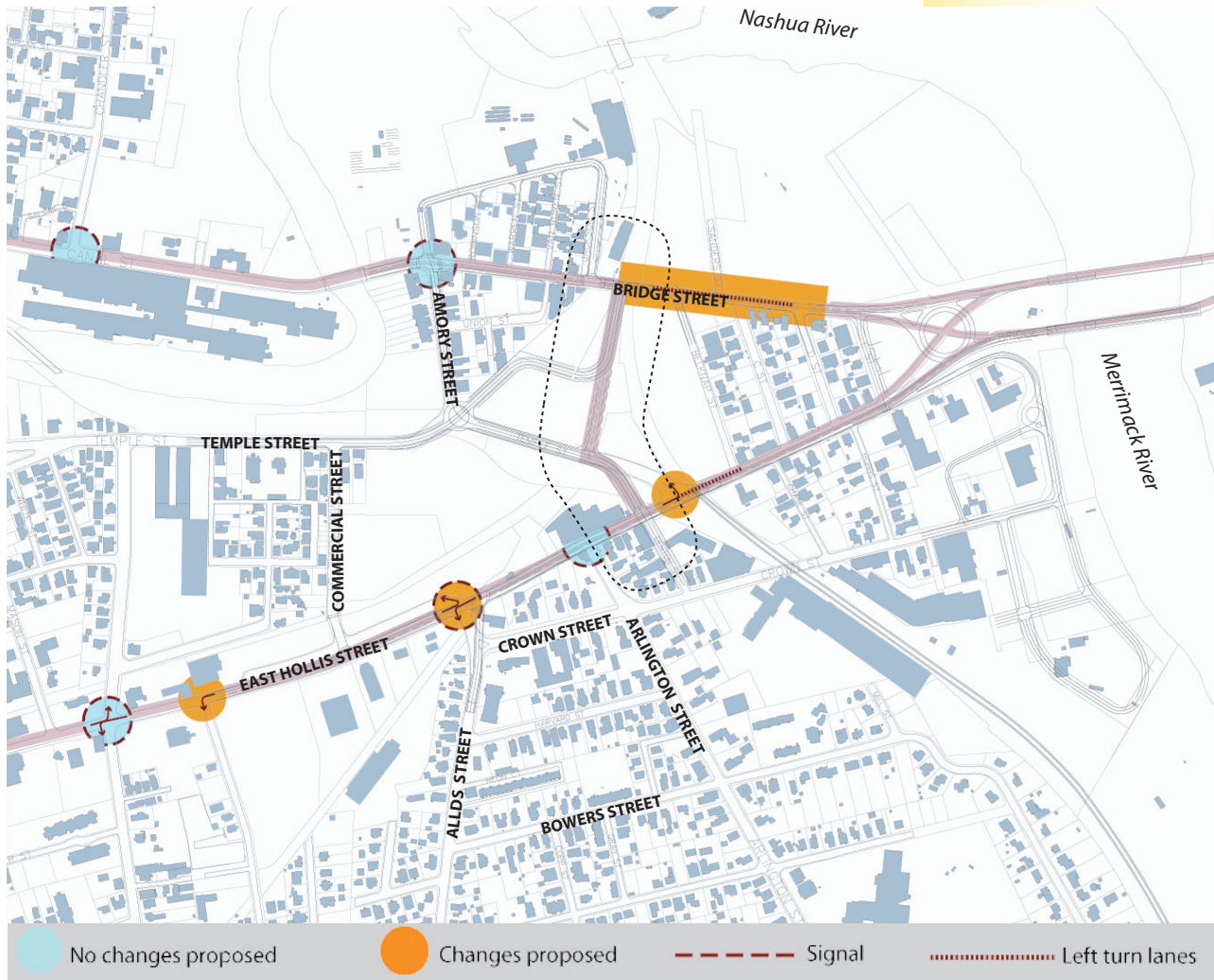


Figure 9 - ALTERNATE VISION A Traffic

A modest infrastructure investment that can improve traffic circulation in the district is to create a new north-south connector between Bridge Street and East Hollis Street. The connector would allow an additional opportunity for traffic to move north or south of the Nashua River without a bridge, in particular the bridge on Main Street. As shown here, the connection to Temple Street follows lot lines, minimizing impacts to property owners. Also, this option shows a reconfigured Temple/East Hollis intersection, removing the oblique approach on Temple and making the connection to Denton and the near-term proposed rail station site.



Figure 10 - ALTERNATE VISION B Traffic

A more substantial infrastructure investment to improve traffic circulation in the district would also create a new north-south connector between Bridge Street and East Hollis Street, with similar benefits. Also, Temple Street is extended into the core of the East Hollis Street district, emphasizing the connection to Main Street. Each roadway is envisioned with an 80' right of way, sufficient for ample sidewalks, street trees and bike lanes. The intersection between the Connector and an extended Temple Street would utilize a small roundabout, as would a new intersection between Amory and Temple. In this configuration, traffic from Bridge to East Hollis would use the direct Connector route, reserving Amory for residential traffic. The roundabout at Amory could feature an elm tree and interpretive displays signifying the importance of that site as the location of the historic Jackson Elm.



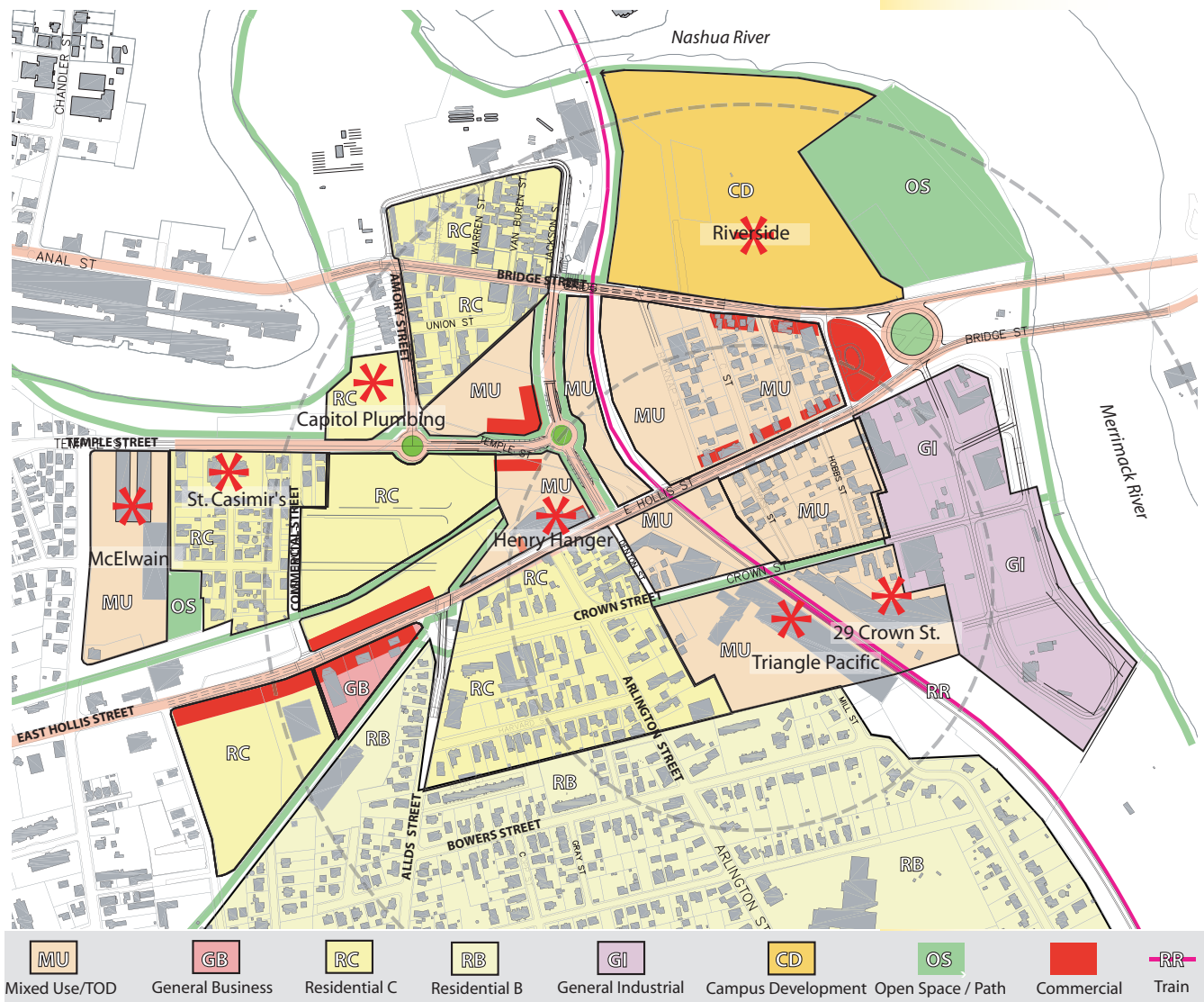


Figure 11 - ALTERNATE VISION B Land Use

Land uses similar to the “Vision for Tomorrow” could be supported in this alternative, featuring commercial uses at the high visibility Gateway site and along the Bridge and East Hollis corridors; residential uses in the “Core” and “Alphabet” subareas, and expanding residential uses east of Commercial Street and along the Nashua River. The Riverside site could become a catalyst through a campus-style development of commercial or institutional space and would need better on-site access. Industrial uses existing in the district may be relocated along an expanded industrial area south of Crown Street, east of the rail corridor.



Figure 12 - VISION FOR TOMORROW Traffic

A comprehensive roadway network to improve circulation in the district might look like this “Vision for Tomorrow”. Roadways are used to create new connections and parcels in the core of the district, improving access significantly to spur development. Again, Temple is extended to intersect with a new north-south connector, bringing a direct Downtown connection into the core of the district. A second north-south roadway would allow for a direct traffic connection to Allds Street and South Nashua. Access to the waterfront and developable land at the Riverside Properties parcel, with better circulation in and around Jackson Square. Additional local roads could improve access to the interior of the larger parcels.



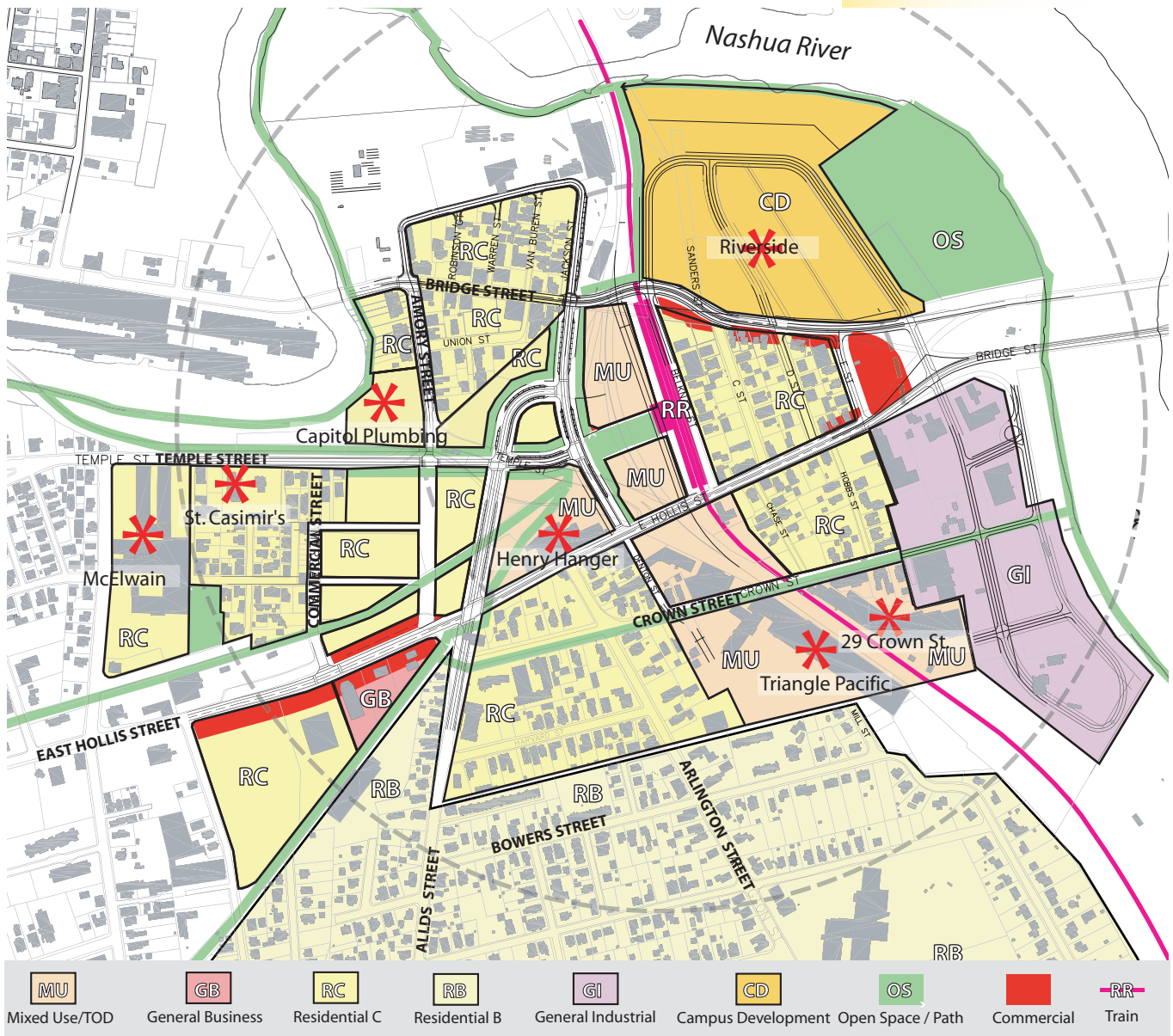


Figure 13 - VISION FOR TOMORROW Land Use

The land use scenario features the rail station at the center of the district, positioned to best encourage new transit-oriented development and for optimal access from both East Hollis and Bridge Street arterials. Adjacent parcels are mixed use or residential development at densities that would support transit ridership. The terminus of Temple Street, also a key entrance to the station, would feature a new central greenspace for the East Hollis Street area, a crossroads for the other green boulevards and pathways and a front yard for the rail station and surrounding development. The visibility of the gateway at the Taylor Falls Bridge, in addition to frontage on commercially-oriented Bridge and East Hollis Street, lends itself to a signature building. Waterfront development is still focused on residential and campus developments.

*APPENDIX X-1: News of the Study
Area*



News - March 12, 2003

Streeter to update on Lowell-Nashua rail

Union Leader News

NASHUA — People from around the state are expected to attend a meeting tomorrow night to discuss the first phase of the Lowell-Nashua commuter rail line, Nashua Mayor Bernie Streeter said this week.

The state of New Hampshire is proposing a commuter rail extension of the MBTA's Lowell Line to Nashua. The line to Nashua would be the first phase of a long-term project to restore commuter rail to Manchester.

The mayor will provide an update on the project and ask for comments from the public. He and Manchester Alderman Daniel O'Neil have agreed to lobby aggressively for the funds to start the project.

So far, the rail extension project has about \$26 million in funds, but the New Hampshire Executive Council voted down funding a \$76,000 contract to complete an environmental assessment for the project.

"The councilors need to understand that this is the most viable commuter rail project in New Hampshire, and if it can't happen here in Nashua, it can't happen anywhere else in New Hampshire," said Streeter.

The rail line would reduce congestion in the area and fuel economic development, according to the city.

The New Hampshire Motor Transit Association is challenging the use of state gas tax funds, which authorities had proposed to use for the matching federal funds. The association filed a lawsuit that is likely to be heard by the state Supreme Court.

The meeting, which is open to the public, will be held at 7 p.m. at Nashua City Hall.

Telegraph –

Thursday, March 13, 2003

Rail backers schedule meeting tonight

By **ANDREW NELSON**, Telegraph Staff
nelsona@telegraph-nh.com

NASHUA – With one eye on upcoming federal transportation legislation and another on the Executive Council, proponents of passenger rail service will meet at City Hall tonight to try to get the local commuter rail project back on track.

The project stalled in October when the council voted 3-2 against funding for an environmental study for the proposed rail station on East Spit Brook Road. Since then, the New Hampshire Motor Transport Association sued the state, arguing that spending state highway money on the rail project violates the state constitution.

Tonight's meeting of the Lowell-Nashua Commuter Rail Steering Committee is open to the public for an update on the project.

Kathy Hersh, director of the Division of Community Development, said the city's goal is to raise awareness about the impasse and urge people to lobby their elected officials.

"It's universally supported," Hersh said. "We've got to rally around it. We've got to be vocal about it."

The proposed project is an 11-mile extension of the commuter rail line from Lowell, Mass., to Nashua. The Massachusetts Bay Transportation Authority would run the service.

The goal is to eventually extend the line to Manchester and, if feasible, make it part of a high-speed rail corridor between Boston and Montreal.

At the same time, rail proponents are watching as Congress sorts out its transportation priorities for the upcoming reauthorization of a federal transportation act.

U.S. Rep. Charles Bass is trying to gauge support for the local rail initiative before submitting his list of key projects to the House Transportation Committee on Friday, said his spokeswoman.

"Congressman Bass still believes in the project. The congressman does not want to secure federal funds for a project that doesn't happen," said spokeswoman Sally Tibbetts.

The legislation in question is the Transportation Equity Act for the 21st Century. It authorizes federal programs dealing with highways and other transportation programs. The law is enacted for a six-year period.

"It's not impossible to get appropriations without authorization, but it's much easier if you have authorization," Tibbetts said.

The state's congressional delegation has secured millions to pay for the rail project, including a recent \$3 million appropriation.

At issue is a \$76,000 environmental assessment contract for the project's rail station. The state is responsible for about \$15,200 of that cost.

The Executive Council, on the 3-2 vote, balked at approving the contract since it would be paid with state gas tax money.

Mayor Bernie Streeter and others have targeted Councilor Ray Wieczorek as the key swing vote.

Political leaders in the state's two largest cities have put their support behind the project. Nashua's Board of Aldermen unanimously approved a resolution asking the Executive Council to approve the contract. The Board of Mayor and Aldermen in Manchester passed a similar resolution last week.

Andrew Nelson can be reached at 594-6415.

Friday, March 14, 2003

Officials, residents rally for rail service

By TOM WEST, Telegraph Correspondent

NASHUA – About 100 political leaders and residents from throughout the state gathered at City Hall on Thursday night to urge the Executive Council to get the stalled **commuter rail** project from Lowell, Mass., to Nashua moving again.

Mayor Bernie Streeter staged what could only be described as a pep rally for the restoration of **commuter rail** service to the state. He said the council needs to reconsider its 3-2 vote in October against a \$76,000 state contract to complete an environmental study for a rail station in south Nashua.

About \$37 million in state and federal funds have been allocated for the project, but it has been stalled by the decisions of Executive Councilors Ruth Griffin, Peter Spaulding and Ray Wieczorek to vote against the study.

Another obstacle developed when the New Hampshire Motor Transport Association sued the state, arguing that spending state highway money on the rail project violated the state constitution.

Streeter, who served on the council for more than 20 years before being elected mayor, said Thursday that state highway funds have been used for things other than roads for decades. He said Gov. Craig Benson backs the rail plan and noted that Attorney General Peter Heed's office will argue in court that the use of state highway money for the Nashua rail project is legal.

"Frankly, I think it's time for the suit to be heard and the attorney general will fight the case for the state," Streeter said.

He opened the session by asking if anyone in the City Hall auditorium opposed the restoration of **commuter rail** service to the state. Not one hand went up.

Wieczorek, the former mayor of Manchester, is considered the swing vote to get the project moving again, Streeter and others said.

In a letter to Wieczorek and the other councilors who opposed the environmental study, Streeter said he and other officials "understand that you have concerns based upon the proposed use of state gas taxes. However, if your October action is not reversed, we will lose the opportunity to consider alternative sources of funding."

Ron O'Brien, a consultant on the project, said the rail corridor would run 11 miles from Lowell to Nashua and would be operated by the Massachusetts Bay Transportation Authority. The local station would be on East Spit Brook Road.

People came from as far as North Conway to testify in favor the project.

Sam Langley of Franklin said he works for a railroad in Massachusetts and said alternative transportation between the two states is essential.

If the political problems can be resolved, the service would start in 2005 or 2006, O'Brien said.

Monday, July 21, 2003

Rail station eyed for neighborhood

By **ANDREW NELSON** Telegraph Staff
nelsona@telegraph-nh.com

NASHUA – A commuter railroad station could be the engine to spark new homes and shops in a working-class neighborhood on the eastern edge of the city.

Preliminary plans drawn by consultants put the station in three different areas of the neighborhood along the tracks, with various spin-off developments.

However, there could be neighborhood resistance to the idea if residents believe the train would create only headaches for them to the benefit of commuters.

A second public meeting to put together an East Hollis Street Master Plan, a document to guide future development in the neighborhood, is scheduled for Wednesday.

The plan looks at the neighborhood on Nashua's east side, the gateway to the city from Hudson. The neighborhood under review is between Spruce Street to the west and Bowers Street to the south, the Merrimack River to the east, and the Nashua River to the north.

It is no surprise that people at the first meeting pinpointed traffic congestion as the area's top problem, with the busy Canal and East Hollis streets cutting through the area.

Karen Berchtold of the Community Development Division said it is clear a railroad station remains years away, but it is better to have a plan in place now that can also address short-term goals.

Urban planners have come up with other ideas, including improving safety, better traffic management and erecting buffers, to improve the neighborhood.

Other less costly ideas include introducing streetscape features such as shade trees, benches and better sidewalks, to make walking more pleasant. People in the neighborhood should also be able to bike and walk along the banks of the Merrimack River.

The plans put the small-scale commuter rail station in one of three locations. Consultants would hope to see development that features closely built houses, such as townhouses, neighborhood shops and job opportunities.

One idea is reusing the Triangle Pacific building south of East Hollis Street as the station.

E. HOLLIS MEETING

WHAT: The second public meeting to write an East Hollis Street Master Plan.

WHEN: Wednesday at 7 p.m.

WHERE: Spartans Drum & Bugle Corps building, at 73 E. Hollis St.

Experts believe the plan would bring modest redevelopment since the area already has existing residential and industrial development. Other projects would be needed to redevelop the area north of any station.

Another idea is to extend Temple Street as an attractive boulevard to a station located between East Hollis and Bridge streets, parallel to Belknap Street. The station would be close enough for existing residences around Crown Street, with good access to developable parcels near the former Johns-Manville property.

The most expensive option is putting a station along the Nashua River and building a bypass from Bridge Street over the railroad tracks to the station.

However, the idea of a train station might not be met with acclaim.

Some residents are wary of the neighborhood changes a train station could bring, such as gentrifying the mainly blue-collar neighborhood, according to a memo from the first meeting.

A train might help Boston-bound commuters, but not neighbors who would be left with a bad traffic situation made worse.

City officials say fears of a railroad station are premature. The ideas are only conceptual at this point and the station is several years away, Berchtold said.

She said the station would be built only after the service to connect Nashua with Boston via rail starts.

And that prospect has become mired in a political fight in the Executive Council over the use of gas-tax money in Concord despite broad support for the idea.

The initial station would be built on East Spit Brook Road in south Nashua.

A downtown station would be smaller, drawing more local residents with less of a need for parking, Berchtold said.

Andrew Nelson can be reached at 594-6415

Tuesday, July 22, 2003

It's time to speak up on neighborhood plan

To respond to this editorial [click here](#). Be sure to include contact information if you would like your letter to appear as a letter to the editor.

KEY POINTS

BACKGROUND: The master plan the city is working on for the Crown Hill-to-Bridge Street area should be taken seriously.

CONCLUSION: Residents and property owners in this neighborhood should attend a public meeting on the plan Wednesday night to get in on the ground floor of the planning process.

It may appear to be so much futuristic thinking for an old and busy Nashua neighborhood, but the residents ought to take this bit of planning seriously.

The redevelopment plan that the city is working on for the area bounded by Bowers Street to the south, Spruce Street to the west, the Merrimack River to the east and the Nashua River to the south encompasses a part of Crown Hill as well as the neighborhood most affected by traffic rolling to and from the Veterans' Memorial/Taylor's Falls Bridge complex.

Part of the planning to improve this area would include the siting of a railroad station, which may be years away, with perhaps the addition of townhouses and shops to re-energize this section of Nashua.

A second public meeting on the evolving plan is scheduled for Wednesday at 7 p.m. in the Spartans Drug & Bugle Corps building at 73 East Hollis St. Property owners and residents of the area should attend.

Absent any contrary comments, city planners will assume their master plan is what this area wants.

A railroad station somewhere along the tracks that run through East Hollis and Bridge streets may bring more people to the area, but residents may believe it will only add to traffic headaches there.

Allowing townhouses in the vicinity of the station could bring more economic activity to the neighborhood but this area is already packed tight with small businesses and apartments.

Beautification efforts to improve some of the major thoroughfares may add more eye appeal to stretches of streets that plainly need it.

Putting plans to paper may not result in immediate changes, but once a master plan is approved, it will be used as the guiding document for the future by those wishing to make changes in the neighborhood.

Wednesday night is the time for neighborhood residents to attend the concept meeting to inform the city planners what they like about the proposed master plan and what they'd prefer to see removed.

Skipping the meeting means forfeiting the opportunity to make a difference in the future of this area.

It's worth a few hours of attention from those the plan will most affect.

Better to be involved now rather than wait to make waves when the plan is completed and the document is cast in stone.

To respond to this editorial [click here](#). Be sure to include contact information if you would like your letter to appear as a letter to the editor.

APPENDIX X-2: Preliminary Study Alternatives

Note: This section features drawings reduced from large formats.

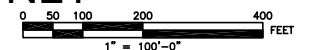




OPTION 1 - DRAFT FOR DISCUSSION PURPOSES ONLY

JUNE 3, 2003

Concept Prepared by: Howard/Stein-Hudson Associates

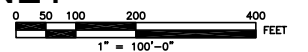


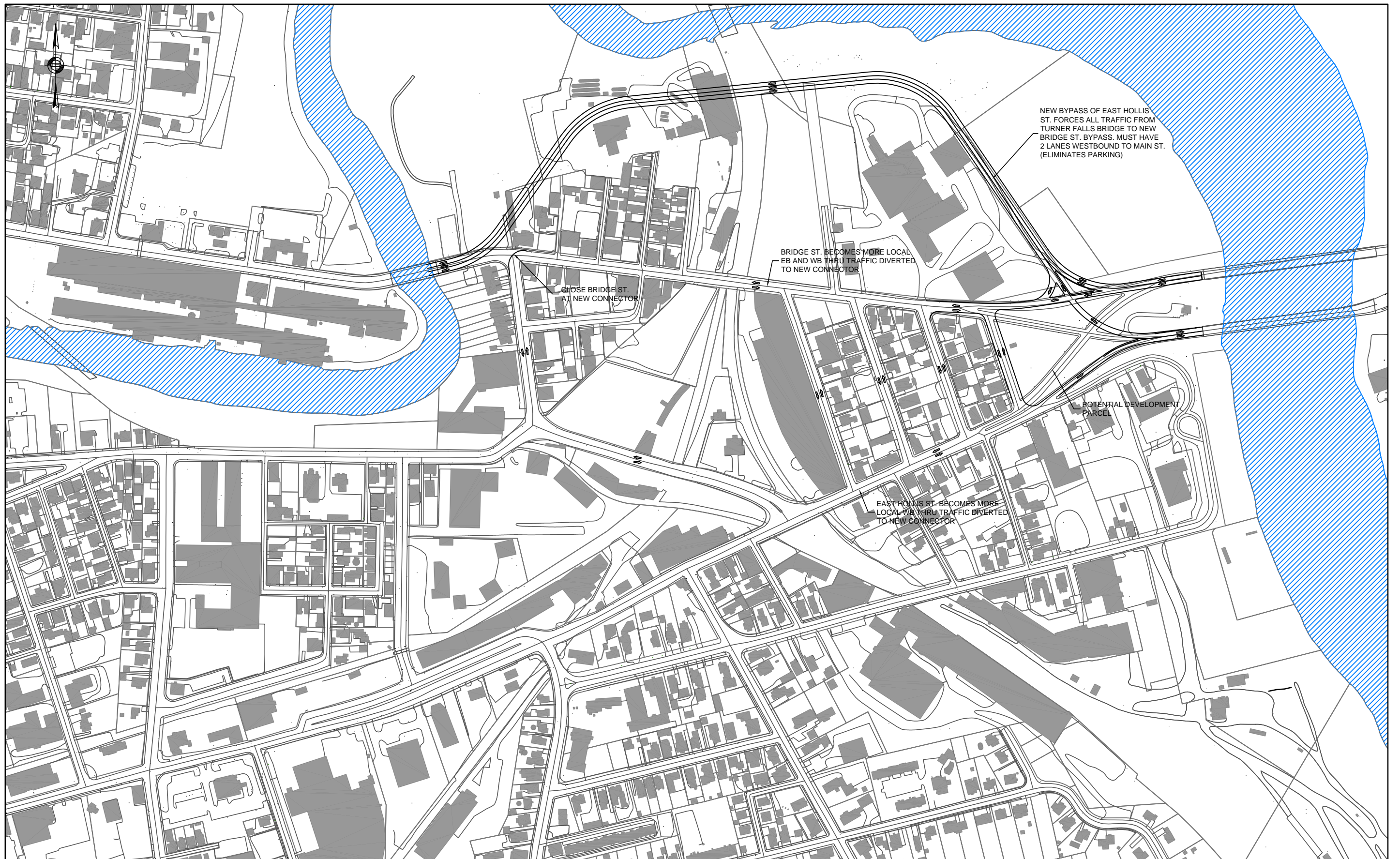


OPTION 2 -DRAFT FOR DISCUSSION PURPOSES ONLY

JUNE 3,2003

Concept Prepared by: Howard/Stein-Hudson Associates

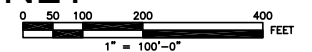


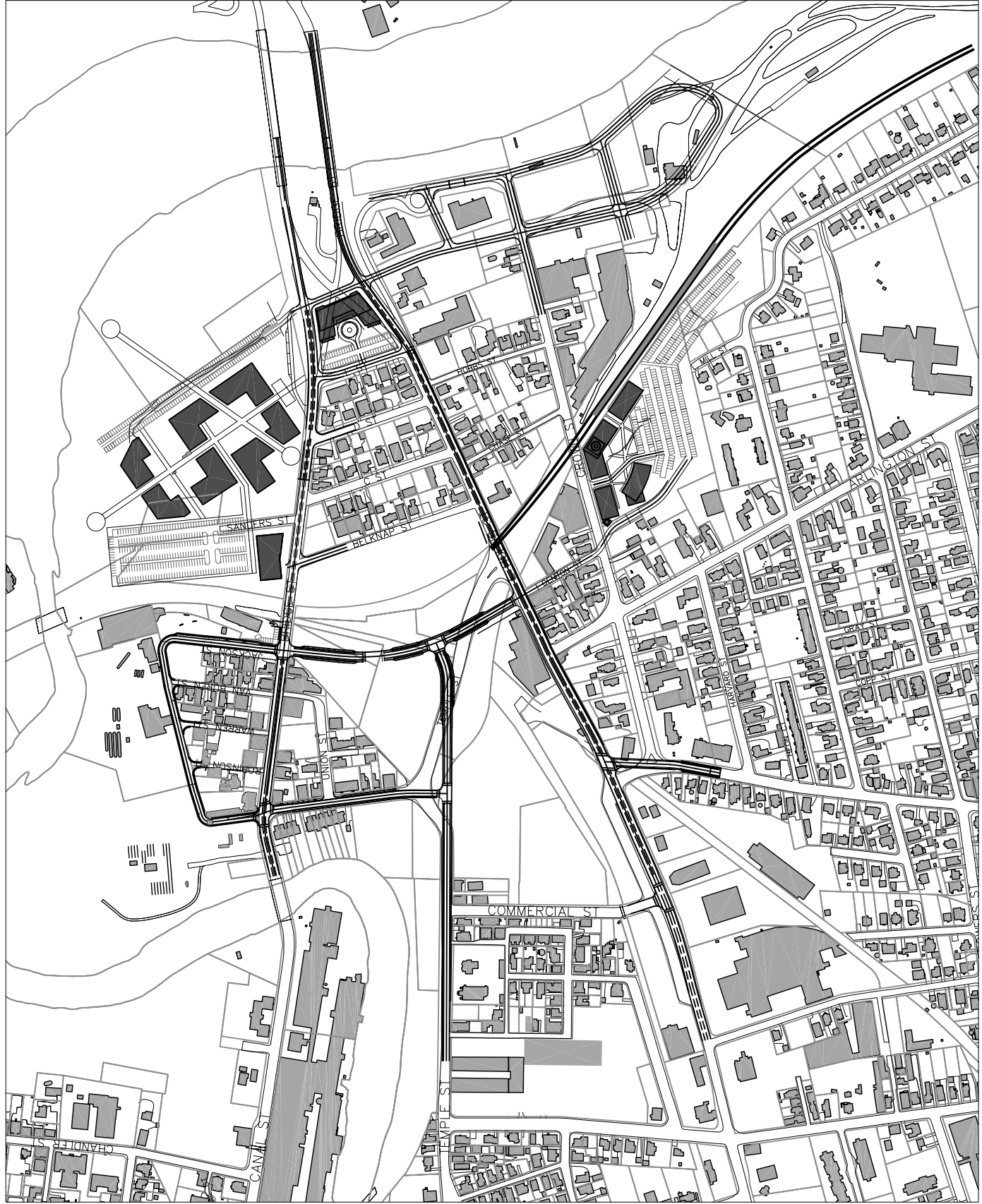


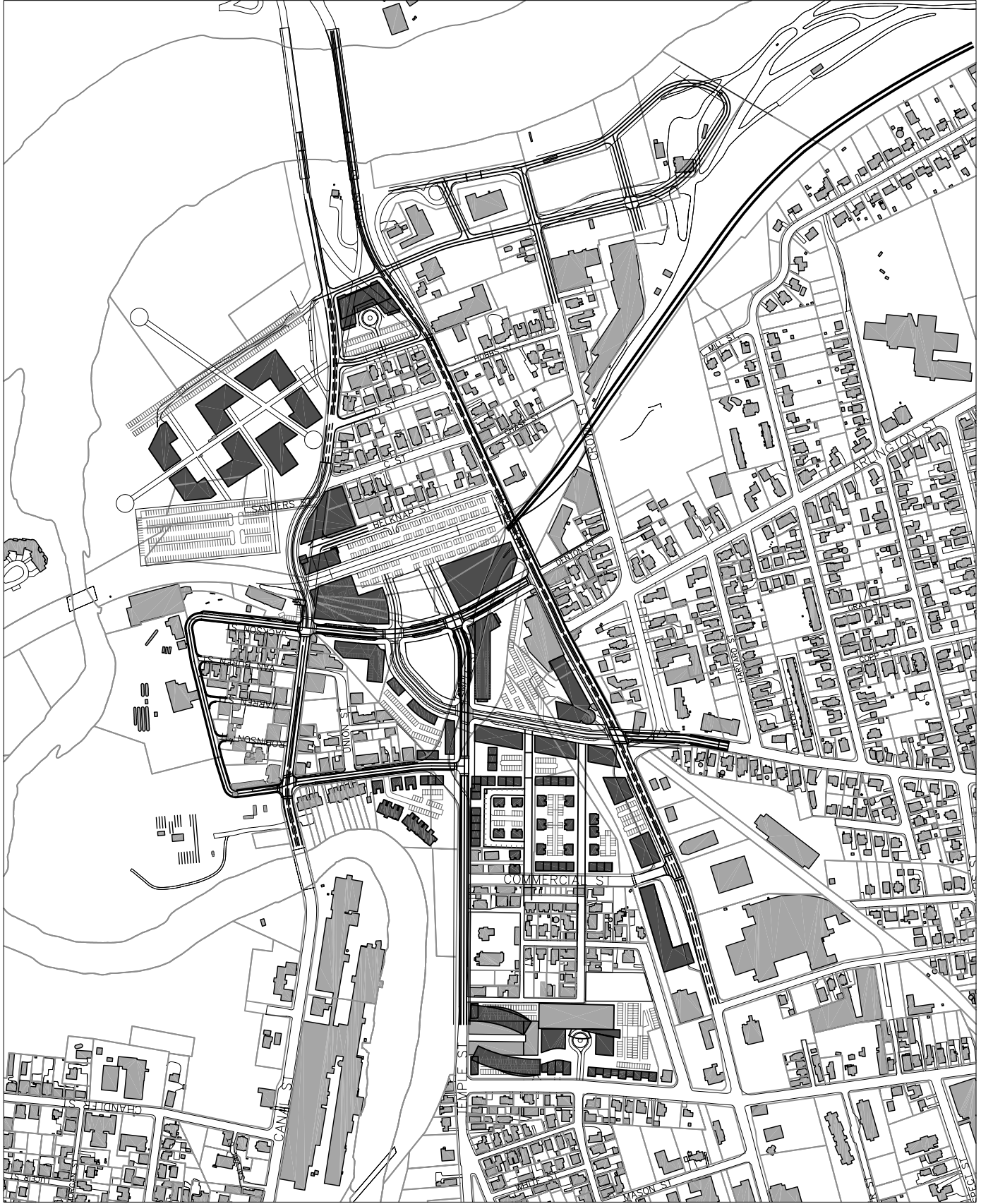
OPTION 3 - DRAFT FOR DISCUSSION PURPOSES ONLY

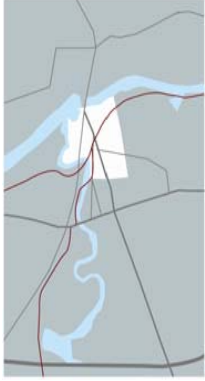
JUNE 3, 2003

Concept Prepared by: Howard/Stein-Hudson Associates







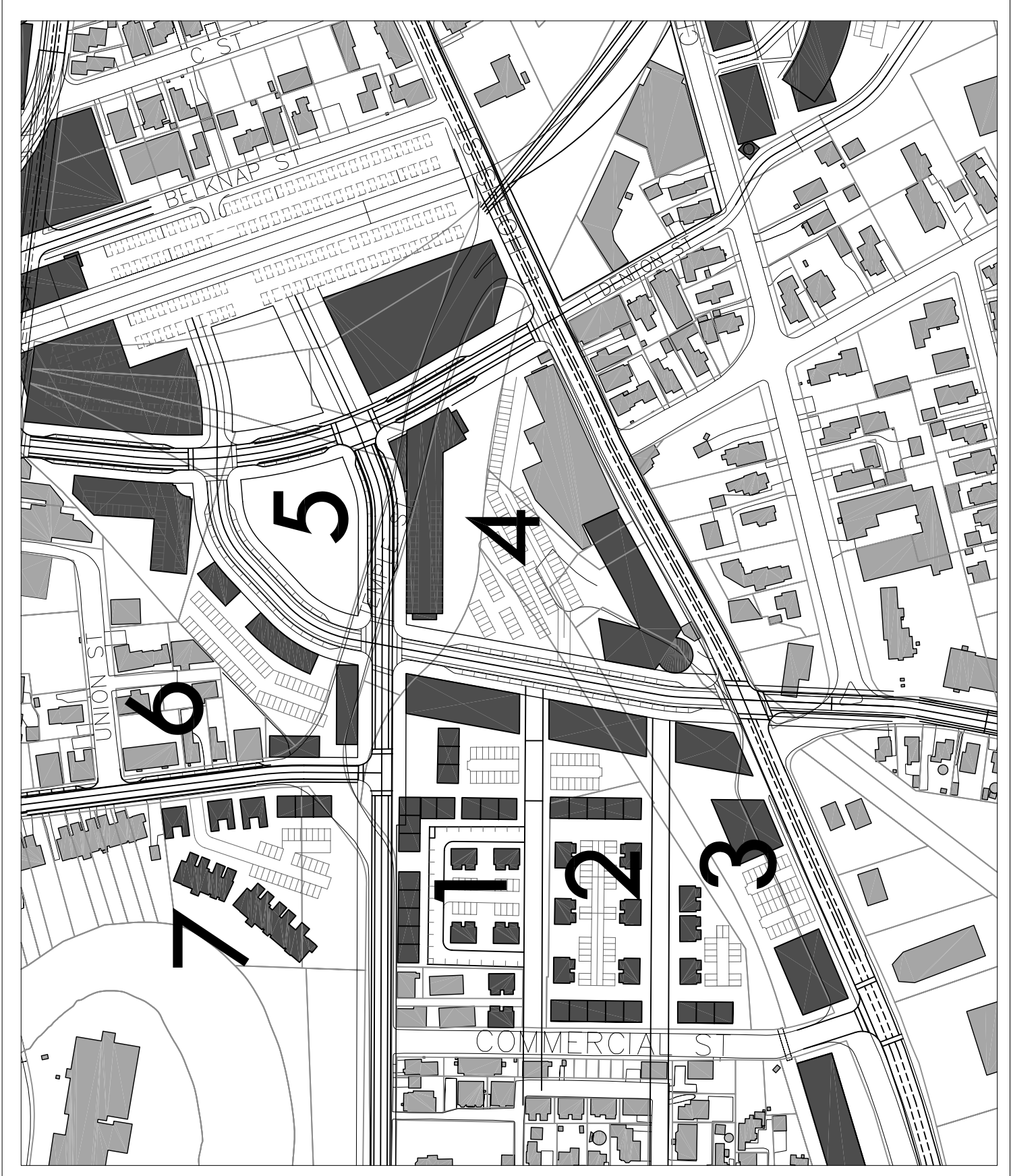


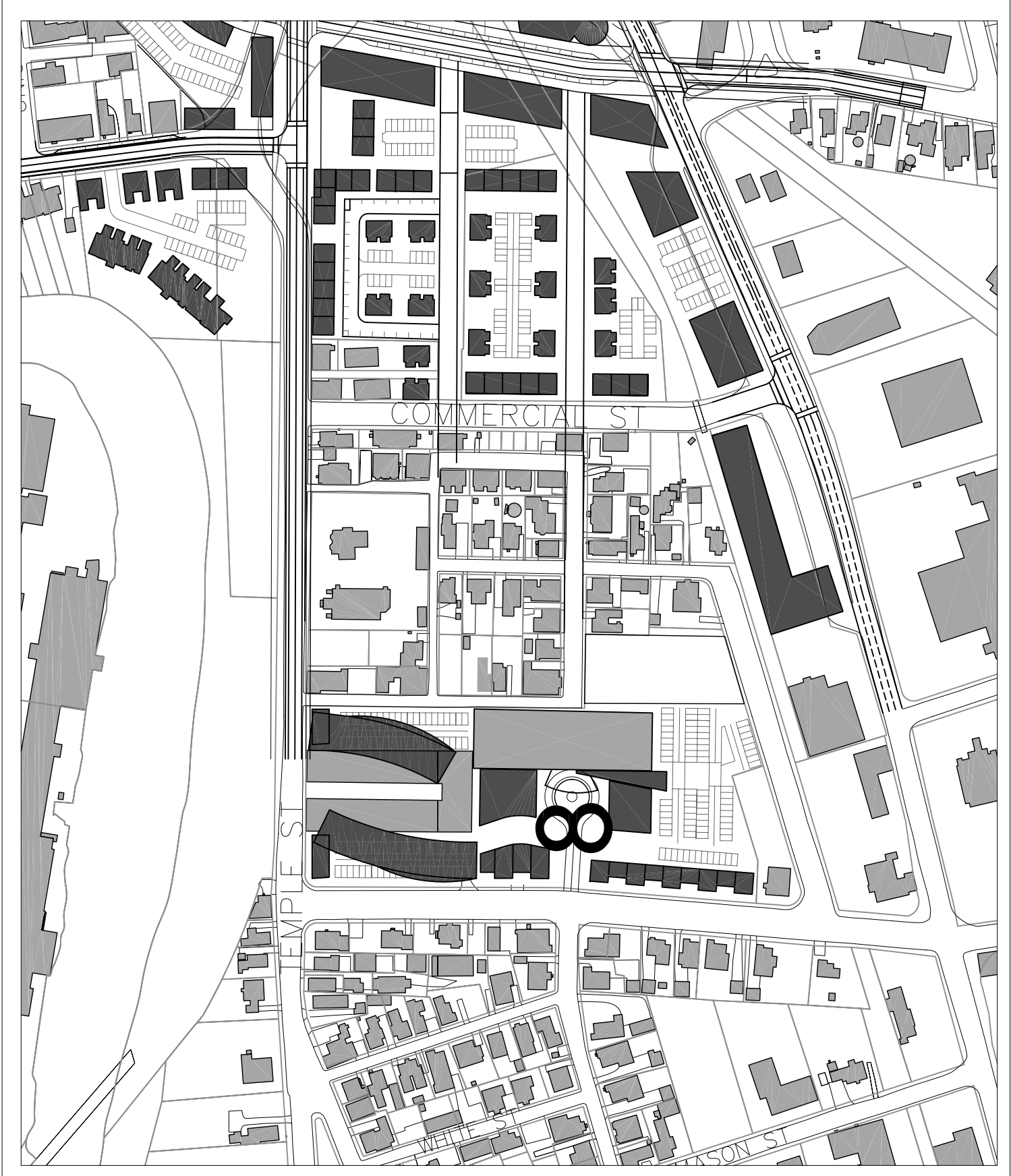
East Hollis Street Area Plan

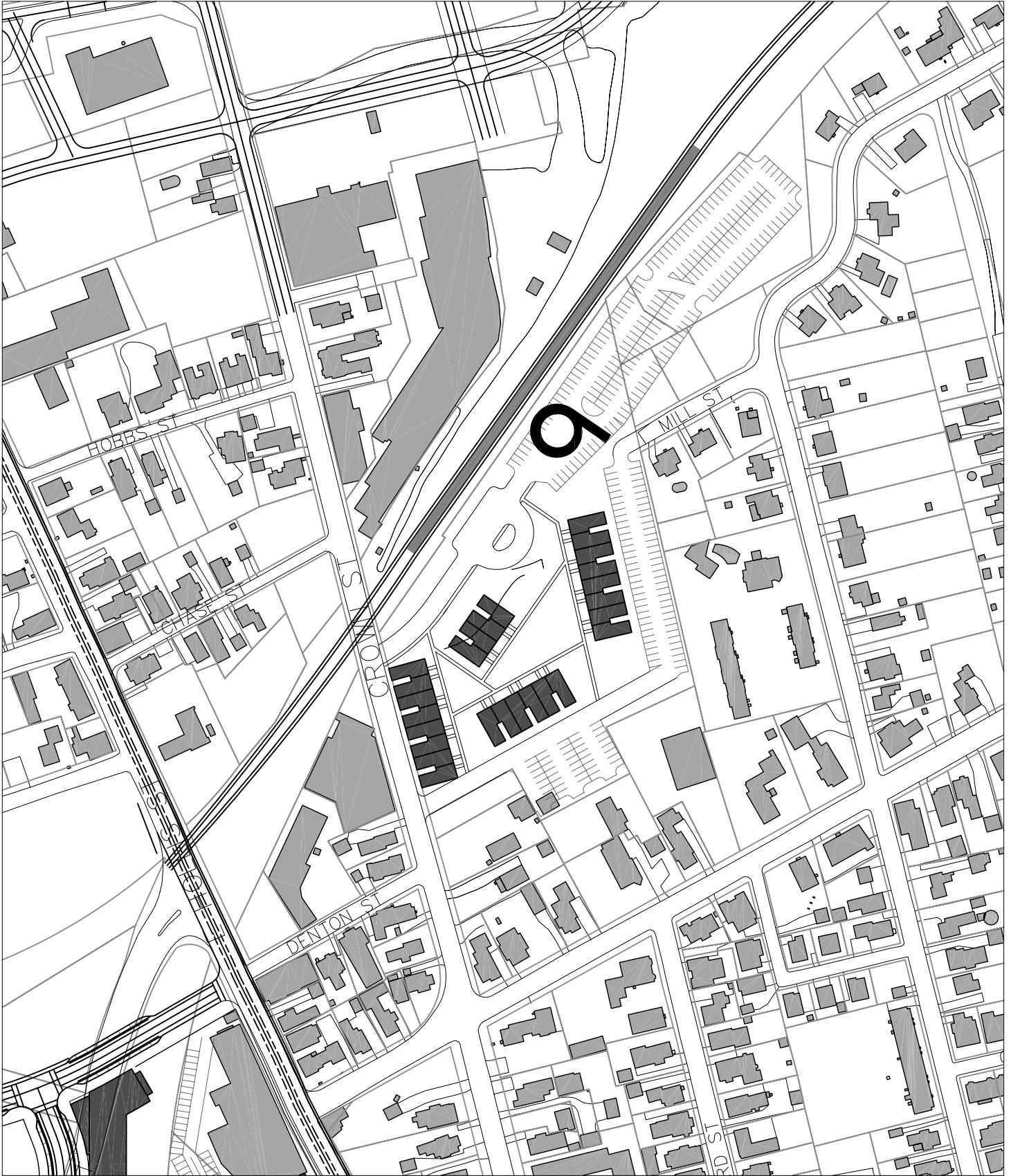
Development Summary

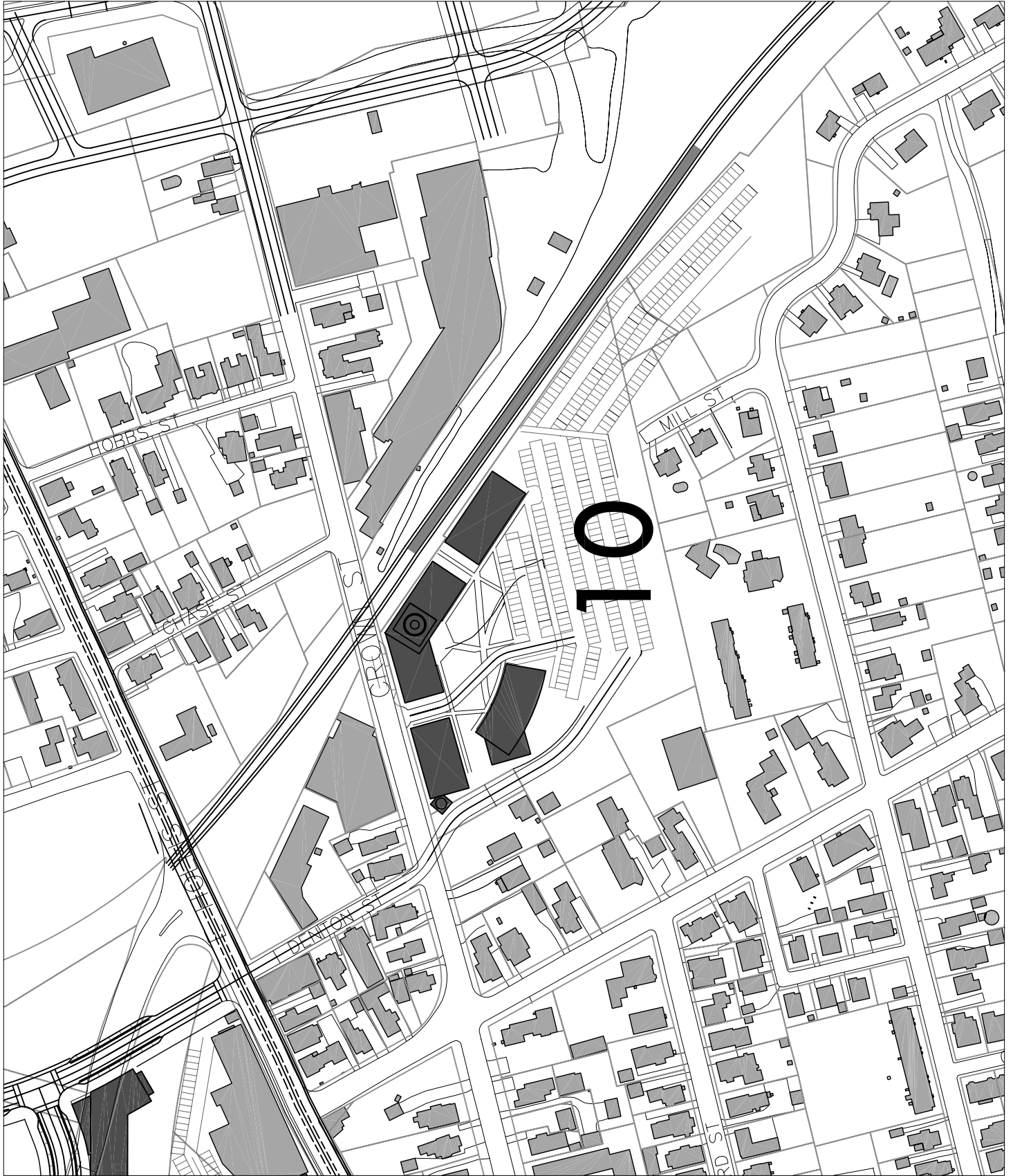
August 26, 2003 Draft

Parcel			Amount of Development by Land Use								Notes	
Designation	Area		Residential		Office	Retail	F.A.R.	D.U.	Parking	Cars		
	Sq. Ft.	Acres	# of Units	Sq. Ft.	Sq. Ft.	Sq. Ft.		per Acre	# of Cars	per 1000		
1.0	102,880	2.4	71	75,000			0.7	30	71	106	1-1.5/DU	Temple Street North
2.0	81,330	1.9	71	68,500			0.8	38	71	106	1-1.5/DU	Temple Street Central
3.0	117,128	2.7	54	84,060		17,240	0.9	20	88	132	1-1.5/DU	Temple Street South
4.0	167,189	3.8	141	173,350		24,300	1.2	37	148	222	1-1.5/DU	Core - Henry hangar
5.0	34,120	0.8										Option Pending
6.0	80,501	1.8	49	71,400		8,100	1.0	27	66	98	1-1.5/DU	Core - New Parcel
7.0	68,960	1.6	34	39,500			0.6	22	34	52	1-1.5/DU	Core - Amory
8.0	211,292	4.9	164	229,460		3,640	1.1	34	171	257	1-1.5/DU	Amory - River
9.0	325,863	7.5	82	94,320		11,205	0.3	11	82	123		Crown Street Station Location - Option 1 and Option 2 (200 additional parking spaces for station)
10.0	325,863	7.5	70	81,150		8,110	0.3	9	70	104		
11.0	791,216	18.2			256,740		0.3		513	770	2/3	Office/Institutional Campus (2 stories)
11.0	791,216	18.2			385,110		0.5		770	1155	2/3	Office/Institutional Campus (3 stories)
12.0	791,216	18.2	206	288,160			0.4	11	206	309	1-1.5/DU	Residential Campus
13.0	59,477	1.4			67,650		1.1		135	203	2/3	Gateway Parcel
14.0	289,689	6.7	169	277,530		41,530	1.1	25	252	377	1-1.5/DU	Central Station Location - Option 1
15.0	289,689	6.7									1-1.5/DU	Central Station Location - Option 2 Pending











EAST HOLLIS STREET AREA PLAN

PROPOSED REDEVELOPMENT:
Waterfront Office Campus

INTERNAL
REVIEW

SCALE: 1"=150'

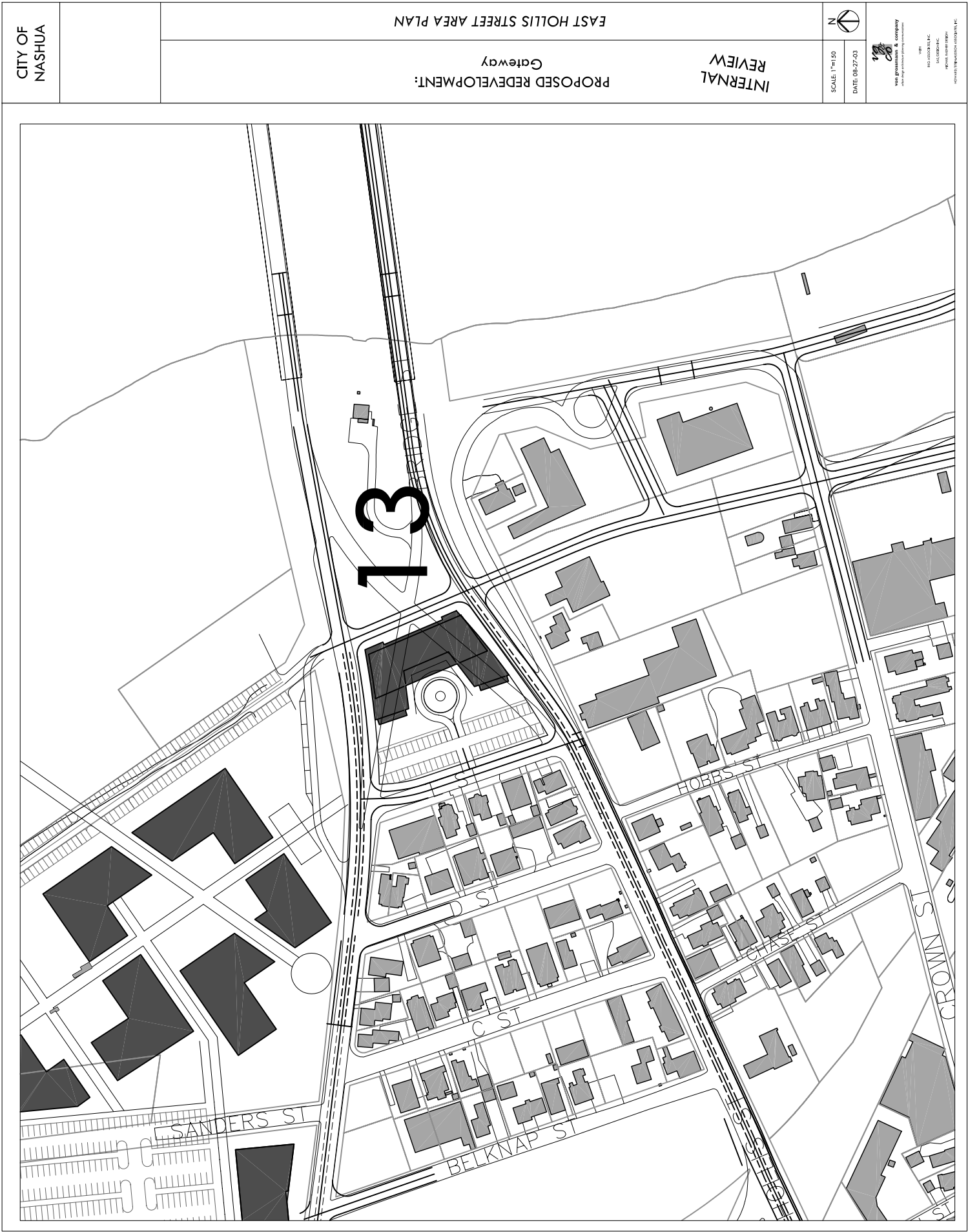
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EAST HOLLIS STREET AREA PLAN

PROPOSED REDEVELOPMENT:
Gateway

INTERNAL
REVIEW



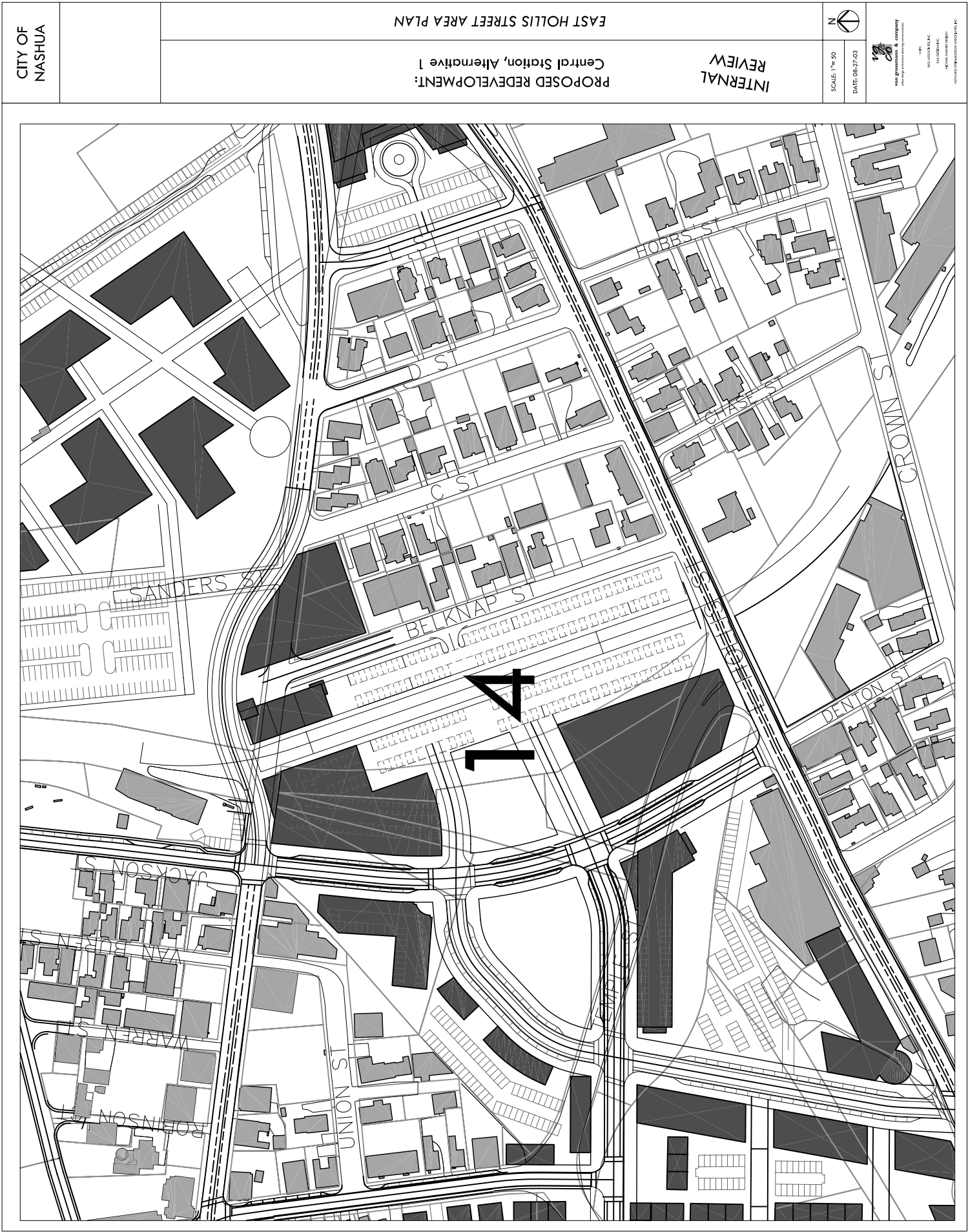
SCALE: 1"=150'

DATE: 08-27-03



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NASHUA



EAST HOLLIS STREET AREA PLAN

PROPOSED REDEVELOPMENT:
Central Station, Alternative 1

INTERNAL
REVIEW

SCALE: 1"= 50'

DATE: 08-27-03

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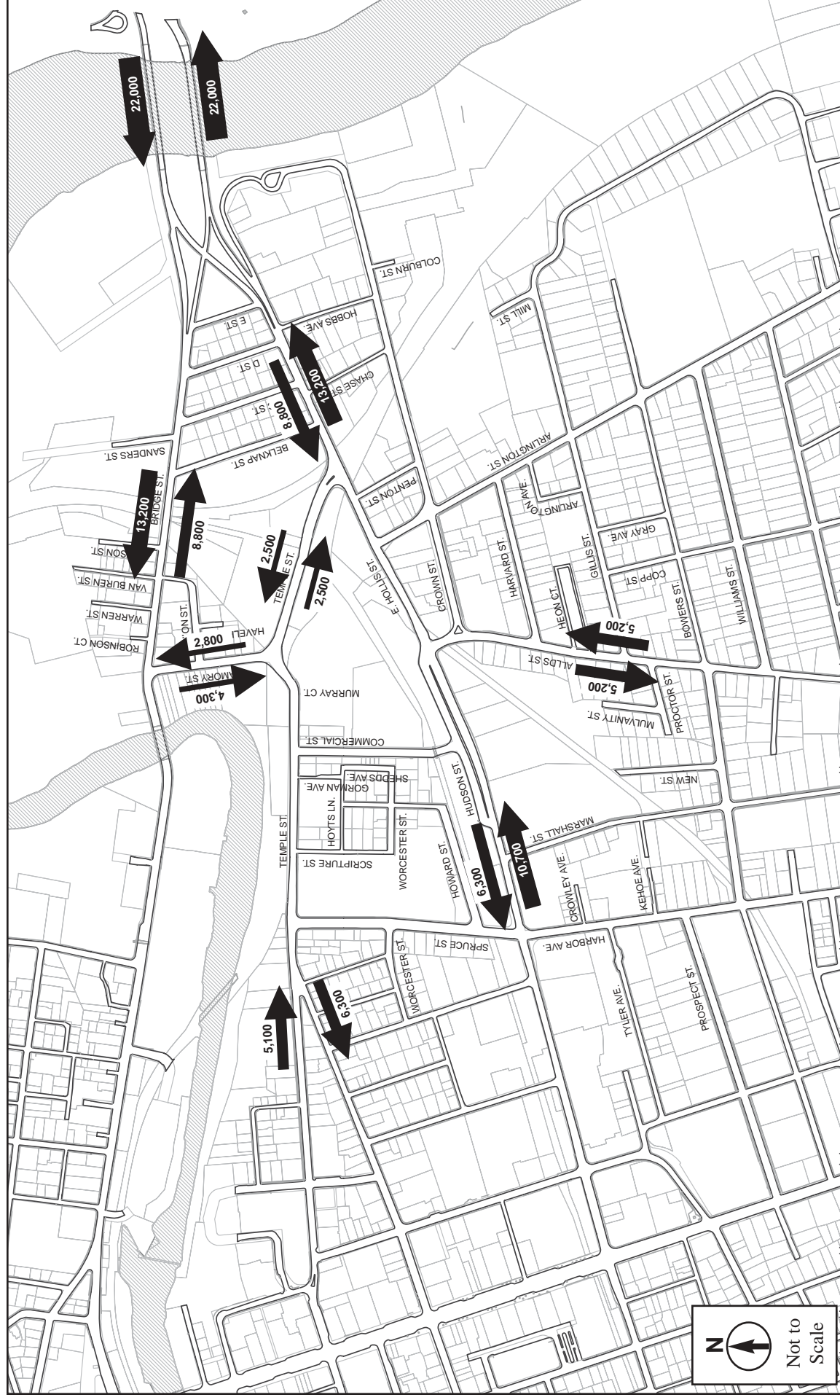


Figure #. Future Weekday Traffic Volumes, Level 1 Roadway Improvement



Source: NRPC 2025 No Build Traffic Forecast

Figure #. Existing Average Weekday Traffic Volumes, Level 1 Roadway Improvement



Source: NRPC 2025 No Build Traffic Forecast

Figure #. Future Average Weekday Traffic Volumes, Level 2 Roadway Improvement



Source: NRPC 2025 No Build Traffic Forecast

*APPENDIX X-3: Study of Riverside Rail
Alignment*





EAST HOLLIS STREET PLAN

TECHNICAL MEMORANDUM

To: File

From: Don Kindsvatter

Date: August 18, 2003

Subject: Rail Alignment Along the River

Overview

The consultant team for the East Hollis Street Area Plan investigated a rail alignment along the river at the request of City of Nashua staff. Such an alignment would reduce the impacts of through rail service on at-grade roadway crossings in a significant portion of the project area. However, the station location necessitated by this alignment would be difficult to access and have limited passenger cachement and transit-oriented development opportunities. Also, the rail would require grade-separation in a long “cut” or boat section in order to clear the underside of structure of the Taylor Falls Bridge, with the secondary effect of greatly reducing pedestrian access to the waterfront..

Background Information & Working Assumptions

The attached plan illustrating the rail alignment assumes the river elevation as 0, and all other elevations are relative.

Generally speaking, the district is fairly flat, with an elevation in the range of 22 to 24 feet. The top of the levy over the sewer line that parallels the water’s edge is at an elevation of approximately 30 feet. Similarly, the existing rail bridge over the Nashua River is at roughly 30 feet. The Taylor Falls Bridge touches grade at about 38 feet in elevation.

The Commuter Rail Design Standards Manual, published by the Massachusetts Bay Transportation Authority, the likely operator of commuter rail service, sets a grade of 1.50% as the absolute maximum allowed, and a preferred maximum grade of

0.70%. For station areas this drops to a 0.75% absolute maximum grade and a 0.50% preferred maximum grade. These maximum slopes need to be reduced along curved track sections.

Station platforms are assumed to be 800 feet in length and centered between the two tracks. Vertical clearance is 18'-0" for passenger service and 22'-6" for freight. It is assumed that freight service will share the tracks with passenger service, and a clearance of 22'-6" is used, also in accordance with the New Hampshire State Rail Plan.

Specifics of the Illustrated Alignment

The horizontal alignment was positioned the west of the levee along the Merrimack, in order to preserve some area along the waters edge for an anticipated open space network. It connects to the south in a straight line to the rail yard. At the Taylor Falls Bridge, two new bridge segments – one eastbound , one westbound - would be required to span the rail beneath. To the north the alignment forms an s-curve roughly approximating the riverbanks and crossing the Nashua River near the existing railroad bridge. Because the station platform needs to be located along a straight section of track, the only option is to place it to the south of the bridge, as shown on the illustration.

The critical issue that sets the vertical alignment is clearance under the roadway connecting to the Taylor Falls Bridge. The elevation of the roadway at the location of the rail alignment is roughly 36 feet. Allowing four feet for depth of structure for the new bridge sections, this places the elevation of the rail at 26'-6" below the surface of the road - or, at a relative elevation of 9'-6" above river level, or approximately 14 feet below existing grade. Given the rail slope constraints, a "cut" or open boat section 2,000 feet in length with tall concrete retaining walls would be required to achieve that elevation below existing grade. It is not clear whether such a cut is feasible, as it may conflict with connections into the sewer interceptor. Such a cut also represents a substantial barrier between the neighborhood and the waterfront. If the waterfront is to become a major open-space asset for the neighborhood, this alignment would clearly reduce accessibility to that open space. The depressed platforms would also pose challenges to passenger accessibility.

This location for a train station is not optimal for two reasons:

- the passenger cachement area around the station is significantly reduced; and,
- vehicular access is difficult.

If we define the cachement area as a quarter-mile radius around the station – the area with the greatest potential for walk-in ridership and transit-oriented development – it would include a large portion of the Merrimack River and a portion of Hudson. With the river being undevelopable and Hudson being outside the control of the City, the area for development around the station is significantly reduced. If the river's edge is desired for use as open space, the area for development is further reduced. Even the area defined by a 500-foot radius around

River Rail Alignment Memo

the station would lose a quarter of its area to the Merrimack River. Additionally, vehicular access to this area less than ideal, with access from one direction via Crown Street.

Other Options

If the rail alignment is left at grade – eliminating the cut – the roadway connecting to the Taylor Falls Bridge would need to be raised approximately 14 feet. Because this would require major reconstruction to the bridge as well as the approach, this option was not looked at in greater detail.

An option that raised the bridge approach slightly would reduce the extent of the cut for the rail. However, this would require two major infrastructure construction projects. Because of the complexity of this option and the likely high cost, this option was not looked at in greater detail.

Attached: Figure 1 – Rail alignment along the river's edge

Figure 1 - Rail Alignment Along the River's Edge

